35 YEARS OF GAMING HISTORY

LOADING...

RETRO

VOLUME 09

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The ultimate guide to classic gaming

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READY



The games consoles of today look completely different to the cartridge and joytstick consoles of yesteryear, with digital downloads and wireless controllers as standard and virtual reality on the horizon. Despite all the differences, the joy in owning a retro console and playing retro games continues to endure. It doesn't matter whether you're playing an old favourite from your childhood, or branching out into landmark games from decades ago. In this book, we take a look at some of the games that changed the way we play, from *Pac-Man* to *Crash Bandicoot*. We'll also take an in-depth look at how some games came to be, including *System Shock 2*, *Duke Nukem 64* and *Star Trek Voyager Elite Force*. You'll also find interviews with some of the industry's leading lights, as the likes of Tom Kalinske, Dave Grossman and Minh Le share their thoughts on their work and its legacy. Throw in the likes of *Myst*, *Street Fighter*, *Ghostbusters II* and *Shenmue* and there's something here for every gamer to enjoy.



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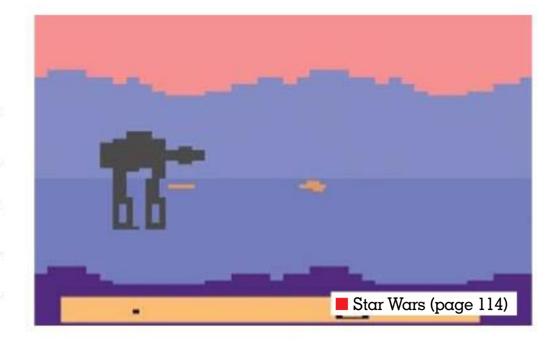
Super Mario Bros

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Ultimate in-depth guides to your retro favourites

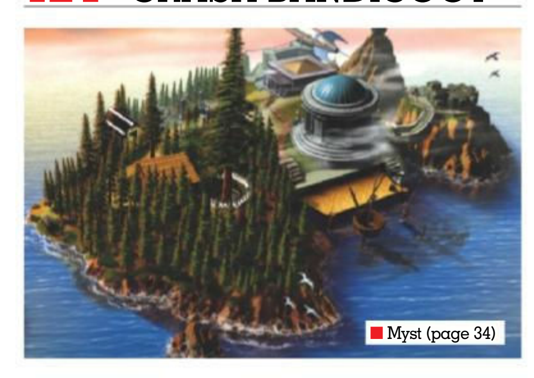

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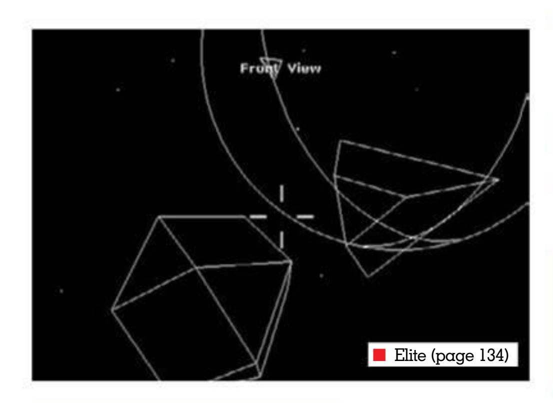
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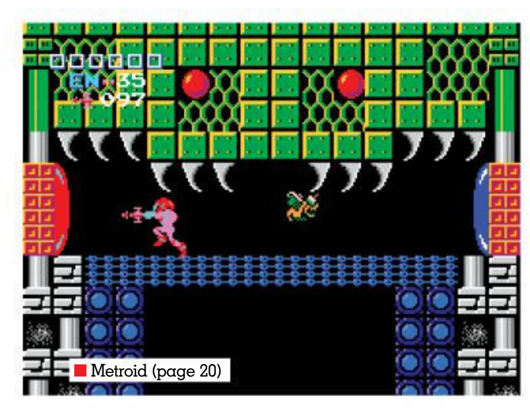
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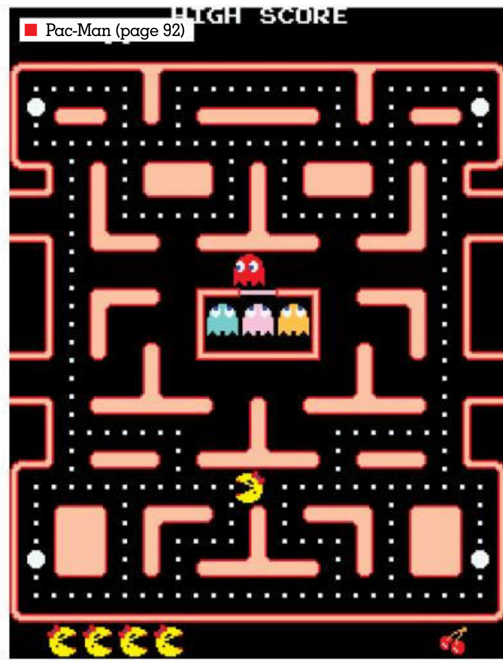
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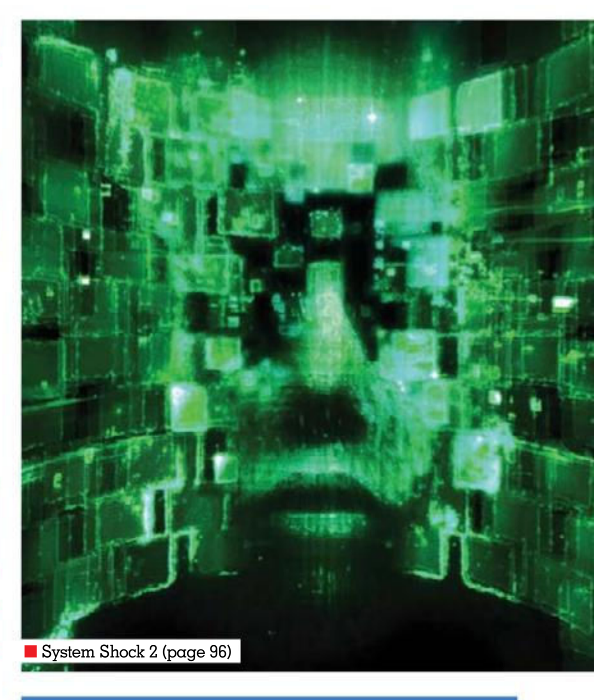
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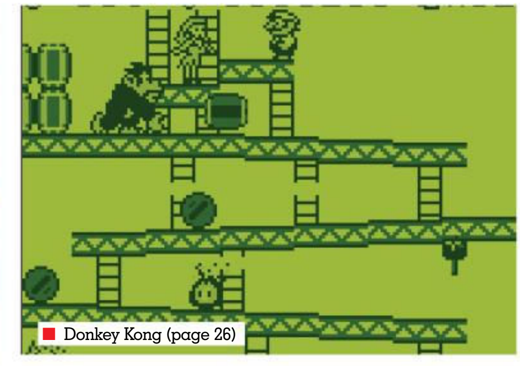


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DISCUSS | Have your say on all things retro on our dedicated forum **www.gamestm.co.uk/forum**



30 YEARS OF SUPER MARIO BROS.

HOW ONE SERIES HAS SET THE BAR FOR PLATFORMING ACTION



It starts with some spare arcade cabinets and the idea of a love triangle.

The tale goes, the failure of *Radar Scope* in arcades in North America lead to Nintendo's president at the time, Hiroshi Yamauchi, turning to a game artist, one Shigeru Miyamoto, to design something for the converted cabinets. What he came up with was a *Popeye*-inspired love triangle that created Pauline, Donkey Kong and Jumpman. The latter would go on to be rechristened Mario during the development of a sequel, *Donkey Kong Jr.* And a new hero of gaming was born.

But that was just the origin story. It was the incredibly successful *Super Mario Bros.* that really turned Mario into one of the biggest entertainment icons in the world. With 40.24 million copies sold, it remains the best selling *Mario* game of all time and a masterclass in game design. With limited memory space, the team found ways of making Mario really stand out.

With all of this in mind we were delighted to speak exclusively with the creator of this iconic character and game, Shigeru Miyamoto, as well as his long-time collaborator and creative partner Takashi Tezuka, an unsung hero of the Mario franchise and many other classic Nintendo titles.



"When I first entered Nintendo, games were not in the family home"





The Real Mario Brothers

GAMES™ SITS DOWN WITH THE CREATIVE TEAM THAT HAS WORKED ON SUPER MARIO BROS. FOR THE LAST 30 YEARS, SHIGERU MIYAMOTO AND TAKASHI TEZUKA

For the last 30 years *Super Mario Bros.* has been a hugely influential game. What is it like knowing that you've had that kind of impact?
SM: I'm really grateful because I think just by nature of being a creator, generally speaking, a lot of people who create, even if they make something of a high quality, they make something that is really dear to them, it's never publicised and it doesn't reach so many people. And that can be challenging sometimes. So I feel even more grateful as a creator that there are sometimes even people waiting to see my creation and anticipating it and for me I just feel very lucky.
TT: When I first entered Nintendo, it was still more that games were outside and not in the family home. It wasn't until later that it became part of the music, film, hobby lifestyle gradually. At this point now, even being interviewed by a magazine itself is just really unbelievable.

Was it the intention to create *Super Mario Maker* as a game that could inspire people into making games themselves?
TT: Yes, it was very important to me as I created this. For me, when it comes to videogames, it's quite simple that the objective of the game is going from start to finish, but how much do you think about it? How much of the time do you try to be creative in achieving that objective? I think that creates a memorable experience. I did want to create that feeling and add that creativity into *Super Mario Maker*.
SM: I've always thought that creating games is really fun, however the focus for me has mostly been puzzle games. I started off producing *Mario Vs DK* for Game Boy and that expanded and continued on to the Nintendo DS and so forth. But Tezuka-san was working on *Mario Paint* and he kind of expanded that range of the puzzle game, incorporating editing tools into the game. I think that *Super Mario Maker* really fits into that evolution.



Super Mario Maker started life as an attempt to reboot the classic *Mario Paint* series for Wii U.

Presumably you went back to some of the original game documents in creating *Super Mario Maker* – was it strange looking back at those files?
TT: Actually, there aren't that many old documents. Because of that I had to go back and play the actual game and sometimes even read strategy books, and really dig into my memory as well, working through that. And so even as we prepared the four different skins, we had to be very imaginative and the artists had to be very creative. What would happen if you put the ghost skin from *Super Mario Bros. 3* in *Super Mario Bros.*? What would it look like? It was a very imaginative and creative process for the artists. Towards the later part of the development phase I strongly requested to add Yoshi as well and I think the staff struggled a little bit in trying to make sure that it fit.
SM: I think switching the skin could be easy and straightforward in your mind, but it really impacted how we thought about the controls. Sometimes you might not be able to do the hip drop or the wall jump. It impacts the motions and the controls and it really changes the difficulty of the courses. Maybe it gets too easy to complete a course and so from a conceptual point of »

view it would almost have been impossible. Because this was an editor tool we were able to be a little bit less restrictive about it. The whole idea is for people to play freely and create whatever they want so we were able to expand the restrictions or expand the possibilities and be less restrictive on what is allowed. For example, Blooper is only in the ocean, in the water worlds, and that's why he's swimming, but in the open air he's still swimming in this as well. It actually makes it a little bit humorous.

And then, going back and looking at the old games, it was a little bit refreshing, because I think we had it almost a little bit better in our minds. We had it in our mind that it was a great game, but then we actually played it and we were like, 'Oh, this part is not as great as we remembered it'. We felt a little bit embarrassed as well at times looking back. That was an enjoyable experience going back.

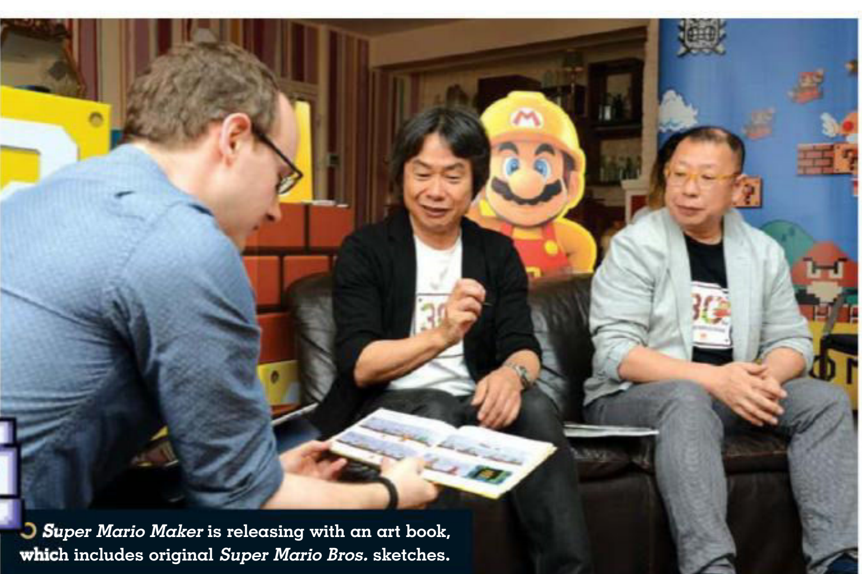
So, we have the original documents in this book [released with *Super Mario Maker*], so you can see it here, but we didn't make copies. We would literally write it with our own hands – the game designs, the illustrations – and hand it to the game programmers. Some of the stuff we had totally forgotten we had we found from an old programmer who had it. Looking back and being like, 'Oh my gosh, I didn't even remember this', it was really fun to look at these old documents. It was really just one copy we had of these original documents. There were a lot of valuables we found through this experience.

TT: One of the things we really put effort into was switching between the screens, the response time to it, as well as the UI, which I wanted to make as simple as possible. Then going even further, we wanted to make the user experience as smooth and as seamless as possible as you switch between the skins and the scenes, so the user can try them out right away. As an example, we tried to keep the number of tool icons to a minimum, so rather than adding more icons you can shake the icon to change it to something else. You're able to do more than the number of icons you can see. With the player exploring and experimenting with the different combinations, we wanted the player to be able to discover it by themselves.

"We don't have other teams develop it, because we do want to control it"



Between them, Miyamoto and Tezuka have worked on all of the biggest franchises Nintendo has ever released.


Super Mario Maker is releasing with an art book, which includes original *Super Mario Bros.* sketches.

In going back to the old documents was there anything that you rediscovered that you had forgotten about?

SM: I was pretty impressed with myself because looking at the old documents I was pretty thorough in what I drew and wrote. [Laughs]

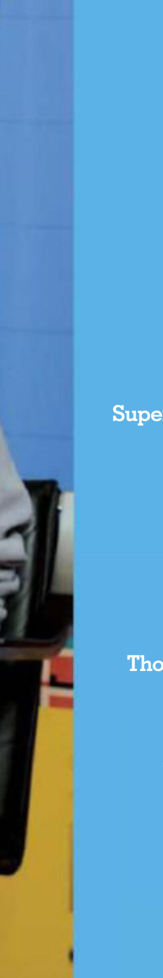
Famously, the design of Mario was somewhat dictated by the limitations of 8-bit. Was there anything else that was due to a limitation that has become a staple of the series?

TT: Because of the limitations we had to be a little bit creative. For example, in *Super Mario Bros.* the shape of the clouds is the same as the grass.

SM: And we found that in the old documents as well, so I was really impressed. Another example is that because the character numbers were limited, mushrooms and Goombas would animate with just a click. So, the animations were limited too and we would just need to flip the animations around and be creative so that







it looked different. The memory was limited too so we had to be creative with the variety of enemies we could create with the limited memory.

TT: As another example, when Mario runs we would have probably wanted eight different patterns and made it a lot more smooth in how it looked. But Miyamoto-san mentioned that if he runs really fast you can't really tell, so we just kept it to three different patterns when Mario runs. But we didn't cut edges or anything. For example, when Mario flips around and starts running in the opposite direction we did include a turn pose in the middle so you can see that as he's turning.

Mario's design has remained pretty consistent over the last 30 years. How did you resist the urge to modernise Mario?

TT: I do think it's changed a bit… For example, in *Mario 3* we made him a little bit cuter. And perhaps with the Tanooki tail and the cape we definitely added items and features so that there's more variety in Mario's actions.

SM: In terms of the 3D Mario performance, it has evolved, but we have always been consistent in trying to be cautious in terms of when you do a B-dash, how far he can jump or how many blocks can he break. We have made it a little bit simpler for players as it's evolved, because there are more complicated things that we're asking the players to do. In the original *Mario* when you're stopped he can't do B-dash, but you can do it now with recent games. So we have made it a »



The Miyamoto/ Tezuka Connection

Over 30 years and so many games



New Super Mario Bros. U [2012]
SM: Producer
TT: Producer



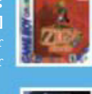
Super Mario Galaxy 2 [2010]
SM: Producer
TT: Producer



Wii Music [2008]
SM: Producer, designer
TT: Producer



Paper Mario: The Thousand-Year Door [2004]
SM: Producer
TT: Character supervisor



The Legend Of Zelda: The Minish Cap [2004]
SM: Producer
TT: Supervisor



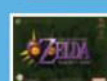
Super Mario Sunshine [2002]
SM: Producer
TT: Producer



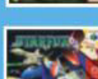
Luigi's Mansion [2001]
SM: Producer
TT: Producer



The Legend Of Zelda: Oracle Of Ages [2001]
SM: Producer
TT: Supervisor



The Legend Of Zelda: Majora's Mask [2000]
SM: Producer
TT: Supervisor



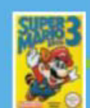
Star Fox 64 [1997]
SM: Producer
TT: Supervisor



Super Mario 64 [1997]
SM: Director, Producer
TT: Assistant Director



The Legend Of Zelda: A Link To The Past [1991]
SM: Producer **TT:** Director



Super Mario Bros. 3 [1988]
SM: Director, producer
TT: Director, designer



Super Mario Bros. 2 (The Lost Levels) [1986]
SM: Director
TT: Director, designer



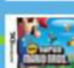
Devil World [1984]
SM: Designer
TT: Game designer



Super Mario 3D Land [2011]
SM: Producer
TT: General producer



New Super Mario Bros. Wii [2009]
SM: Producer
TT: Producer



New Super Mario Bros. [2006]
SM: Supervisor
TT: General producer



Pikmin 2 [2004]
SM: Producer
TT: Producer



Mario Kart: Double Dash [2003]
SM: Producer
TT: Producer



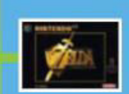
The Legend Of Zelda: The Wind Waker [2002]
SM: Producer
TT: Producer



Pikmin [2001]
SM: Producer
TT: Progress management



The Legend Of Zelda: Oracle Of Seasons [2001]
SM: Producer
TT: Supervisor



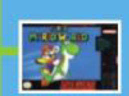
The Legend Of Zelda: Ocarina Of Time [1998]
SM: Director, producer, designer
TT: Supervisor



Yoshi's Story [1997]
SM: Producer
TT: Producer



Super Mario World 2: Yoshi's Island [1995]
SM: Producer
TT: Director



Super Mario World [1990]
SM: Producer
TT: Director



The Legend Of Zelda [1986]
SM: Director, producer, designer
TT: Director, designer, writer



Super Mario Bros. [1985]
SM: Director, producer, designer
TT: Assistant director, designer







Mario's Most Unlikely Appearances

The plumber has stretched himself beyond the typical releases over the years



Dance Dance Revolution Mario Mix [2005]
Packed with Mario characters and music, this remains the only *Dance Dance Revolution* title released on a Nintendo console outside of Japan. It even had a plot, involving Waluigi stealing the Music Keys and either Mario or Luigi being tasked with bringing them back… through the power of dance.



Mario & Sonic at the Sochi 2014 Olympic Winter Games [2013]
We had already seen the unlikely situation of Mario and Sonic involved in a footrace in *Mario & Sonic At The Olympic Games* in 2007, but the Winter Olympics was even more surprising. We never thought we would see Mario curling or figure skating.



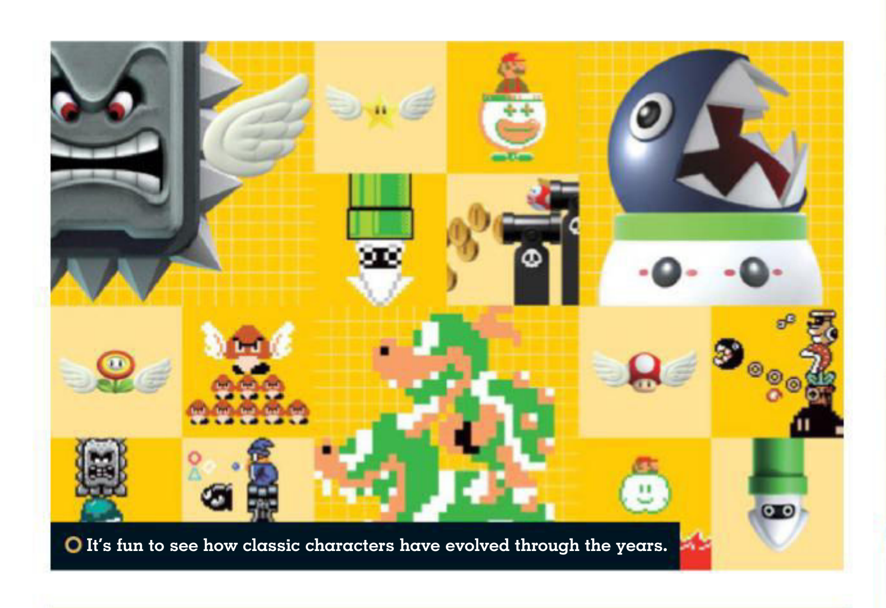
Mario Hoops 3-on-3 [2006]
Once again, Mario had already starred in a few sports titles, involving tennis, golf, football and eventually even baseball, but there's something especially strange about this truncated game of basketball on the DS. With the touchpad used for passing and shooting control, it wasn't exactly the most intuitive experience.



Mario's Time Machine [1993]
Strange for a number of reasons, not least for the fact it was released on Windows PCs before anything else, this is an educational game that has Mario travelling through time, attempting to retrieve artefacts stolen by Bowser by answering questions on historical figures.



Mario's Picross [1995]
Picross is a classic form of picture logic puzzle. Think Sudoku mixed with Pictionary on a pixel grid. It's not exactly the first thing we would have thought of for Mario, but it proved popular enough to spawn sequels, *Picross 2* also released on Game Boy and *Super Picross* for Super Famicom in Japan.

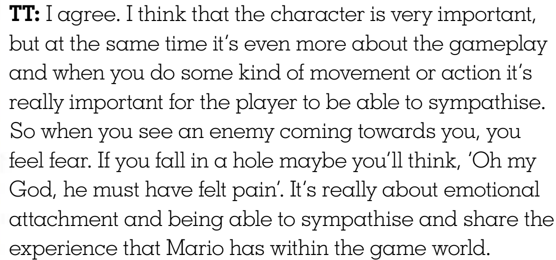

It's fun to see how classic characters have evolved through the years.

> "Mario is an old man and no one would really ever create an old man, so I think that really makes it unique"



little bit simpler and tweaked it throughout the years. In terms of *Mario* games we definitely don't have other teams develop it, because we do want to control it and manage those features.

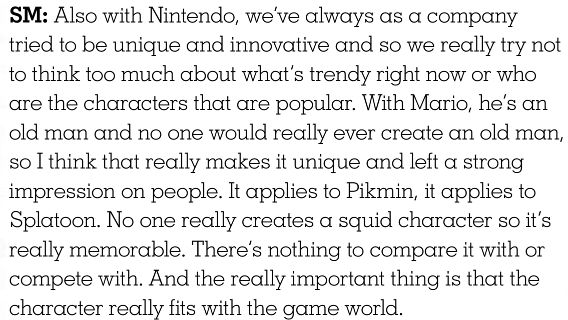
What do you think it is about Mario himself that has made him such a long-lasting and popular character in gaming?



SM: For me it's very simple, and perhaps it's a little bit weird for me to say this, but I really think it's because the game is fun. If it were a different character I think that character would be popular.

TT: I agree. I think that the character is very important, but at the same time it's even more about the gameplay and when you do some kind of movement or action it's really important for the player to be able to sympathise. So when you see an enemy coming towards you, you feel fear. If you fall in a hole maybe you'll think, 'Oh my God, he must have felt pain'. It's really about emotional attachment and being able to sympathise and share the experience that Mario has within the game world.





SM: Also with Nintendo, we've always as a company tried to be unique and innovative and so we really try not to think too much about what's trendy right now or who are the characters that are popular. With Mario, he's an old man and no one would really ever create an old man, so I think that really makes it unique and left a strong impression on people. It applies to Pikmin, it applies to Splatoon. No one really creates a squid character so it's really memorable. There's nothing to compare it with or compete with. And the really important thing is that the character really fits with the game world.



World 1:1 does a great job of teaching the player what to fear and what to avoid. How much planning went into that design?

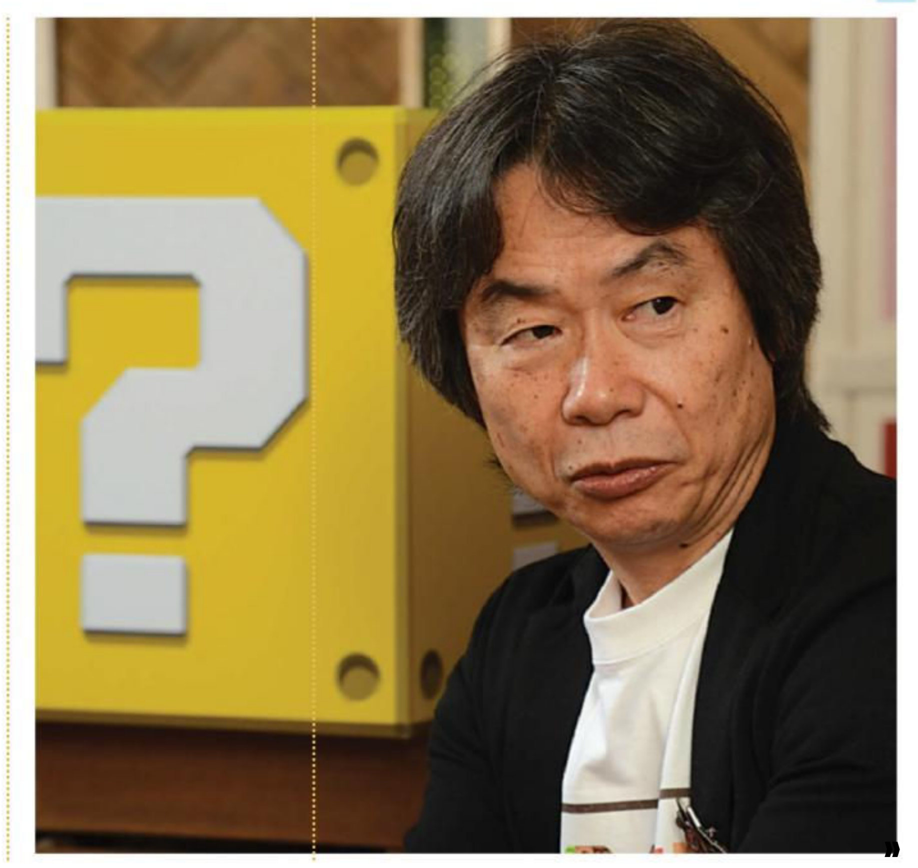
TT: I really think Miyamoto-san put a lot of thought into the first course. Even if you look at the draft documents as we drew it out we really simulated what a first-time player would do and experience. Emotionally too; if you saw a Goomba coming maybe they would want to jump onto the platform on top. So we really looked at the details and simulated the player's experience and thought process, designing the course based on that.

SM: I don't want people to think that I'm a manipulator, necessarily, based on that comment. It's really about my intention of wanting players to really understand the game mechanic, so just on the first and second stages we want the player to fully understand the game and for the rest of it be able to generally enjoy the game. Even when our testing team was playing the game I would stand behind them to see if what I simulated or what I thought is happening or not.

TT: Sometimes you forget what a first-time player experiences or goes through as you continue to design games. It's interesting to go back and refresh what it takes, because just the game control of using your left and right hands very differently in itself could be a new experience for a first-time game player. From that point of view it's really important and good to continue refreshing your memory of what that experience is.

What was the scariest moment of working on the series? Was it the leap from 2D to 3D on the N64?

SM: For me personally I really enjoyed changing »



between 2D and 3D. I always wanted to see what people who know Mario would imagine 3D Mario to look like. There were a lot of people who couldn't make that transition. It did help with our next challenge of what do we need to do, how do we address 3D? And the reason why *New Super Mario* was named that way, with the 'New', was that Tezuka-san really addressed that and even though it goes back to the original foundation of Mario we didn't want it to look old.

"I think I'm very free. I can sometimes be irresponsible – I might say anything"

Have there ever been any choices you've made during the series that you feared might be controversial?
SM: For me one of the things was maybe the gap between the really advanced players and the first-time players. The difficulty balance is always something that I hear frustrations about from the public, whichever way we decide to go. We always have the testing team test our game, but whatever they say is really fun, the first-time players might consider to be very difficult. One of the things I do sometimes at the later phases of development is go in and hear the testing team's requests and actually pull that away and lower the barrier or change what it is they want. Sometimes I even hear from the testing team, 'You're destroying the fun', but on the other hand, the flipside is you hear the first-time players saying 'If I can't clear a level it's not fun for me. If I can't complete a game it's not fun for me'. The more years that have passed, the gap between advanced and first-time players has become wider.
TT: Even though we put a lot of time and effort into trying to balance the difficulty, when we actually release there are a good group of people who can't complete the whole game, and so we always have that internal struggle of the gap between the advanced and first-time players. That's why one of the things we're trying with *Yoshi's Woolly World* is to have two different versions of events for the advanced and the beginner players. We changed the performance of it, but then even in the beginner mode we did put a lot of stuff in there so that advanced players can still have fun. We put a lot of time and effort into trying to balance that out.
SM: Other examples of how we try to address that or experiment are with the Silver Tanooki in *3D Land* or Luigi playing in *New Super Mario.*



These two men are responsible for some of the most iconic characters in the industry, and they're still going strong.



10 THINGS YOU SHOULD KNOW ABOUT SUPER MARIO BROS.

The essential Mario knowledge that every fan will want to know

1 It is believed Mario is named after the landlord of the building in which the development team had been staying in America during the development of *Donkey Kong Jr* after he interrupted them to demand rent in the middle of a meeting.

2 *Super Mario Bros.* was made simultaneously with *The Legend Of Zelda*, sharing much of the same development team as well as some ideas. The Fire Bars for instance were added to *Super Mario Bros.* after having been conceived for Zelda.

3 Mario and Luigi are twin brothers, born in the Mushroom Kingdom, at least according to the end of *Super Mario World 2: Yoshi's Island*, going against some depictions of the characters in other media. Mario remains the elder of the two though.

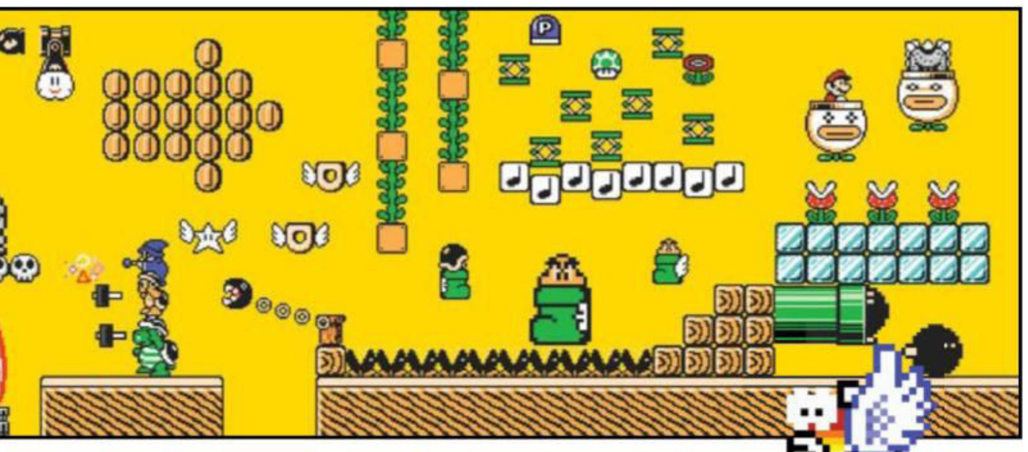
4 Mario is actually the bad guy in *Donkey Kong Jr*, having trapped Donkey Kong in a cage at the beginning of the game and with you playing as the great







Miyamoto and Tezuka's passion for games seems as alive now as it was 30 years ago when they created *SMB*.



ape's son, trying to help him escape from the plumber's clutches. We'd like to think their differences have been settled.

5 Longtime Mario nemesis Wario's name comes from a combination of Mario and the Japanese word for evil, 'warui'. He was actually designed by the same developer who created Samus Aran from *Metroid*, Hiroji Kiyotake.

6 Another name considered for Mario was Mr Video, with Miyamoto stating that he hoped to use him in all of his videogames, inspired partially by the way Alfred Hitchcock would always appear in his own movies. An interesting connection to make.

7 Mario is believed to have made around 100 appearances as a playable character so far, with perhaps another 50 in non-playable roles, making him one of the most prolific game characters in the history of the games industry.

8 Famously, *Super Mario Bros. 2* as we know it in Europe and North America was actually a completely different Shigeru Miyamoto game called *Yume Kojo: Doki Doki Panic.* The real sequel was considered too hard for western gamers, but later released as *The Lost Levels.*

9 The Boo character was originally inspired by Takashi Tezuka's typically even-tempered wife after she became furious with him for working so many late nights. That's why the Boos become angry when you turn away from them, but shrink away when you look at them.

10 The Warp Whistle from *Super Mario Bros. 3* is another borrowed game mechanic from *The Legend Of Zelda*, allowing you to warp to stages further in the game. It even plays the same notes as it did in its original incarnation.

How important has your relationship been with each other over the last 30 years in inspiring each other's creativity?

TT: From my point of view I think I'm very free, I can sometimes be irresponsible – I might say anything. I say a lot of things, but what Miyamoto-San does with my ideas is that anything that I say that he thinks is interesting he makes an effort to try and pull that out, expand that idea and incorporate it in the game.

SM: I see myself as Tezuka-san's translator. Sometimes I think, 'What is this guy talking about?'. But sometimes he says something really important or intuitive and it's really about picking that up and valuing his comments. So, that's my role in the relationship. [Laughs]

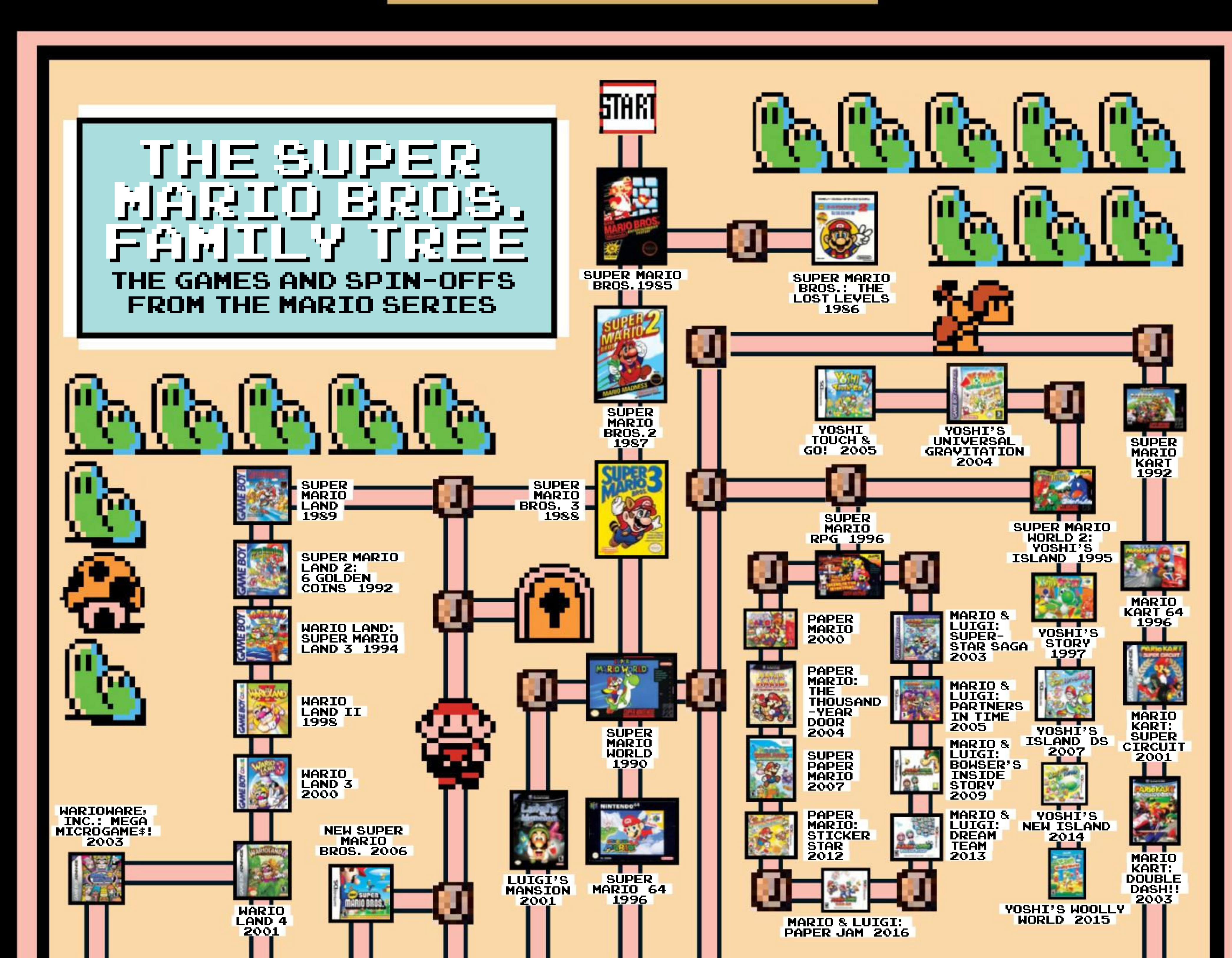
That's obviously half-joking. I do think that we're very equal and that we have an equal relationship. Our creative viewpoints might seem very different at times, when it comes to the same issues or problems that we're identifying – the things that we think are fun in the world and we need to pay attention to – a lot of things that we might argue or discuss and think 'Oh, we're so different', but within two or three days we realise there's fundamentally a similar way of thinking.

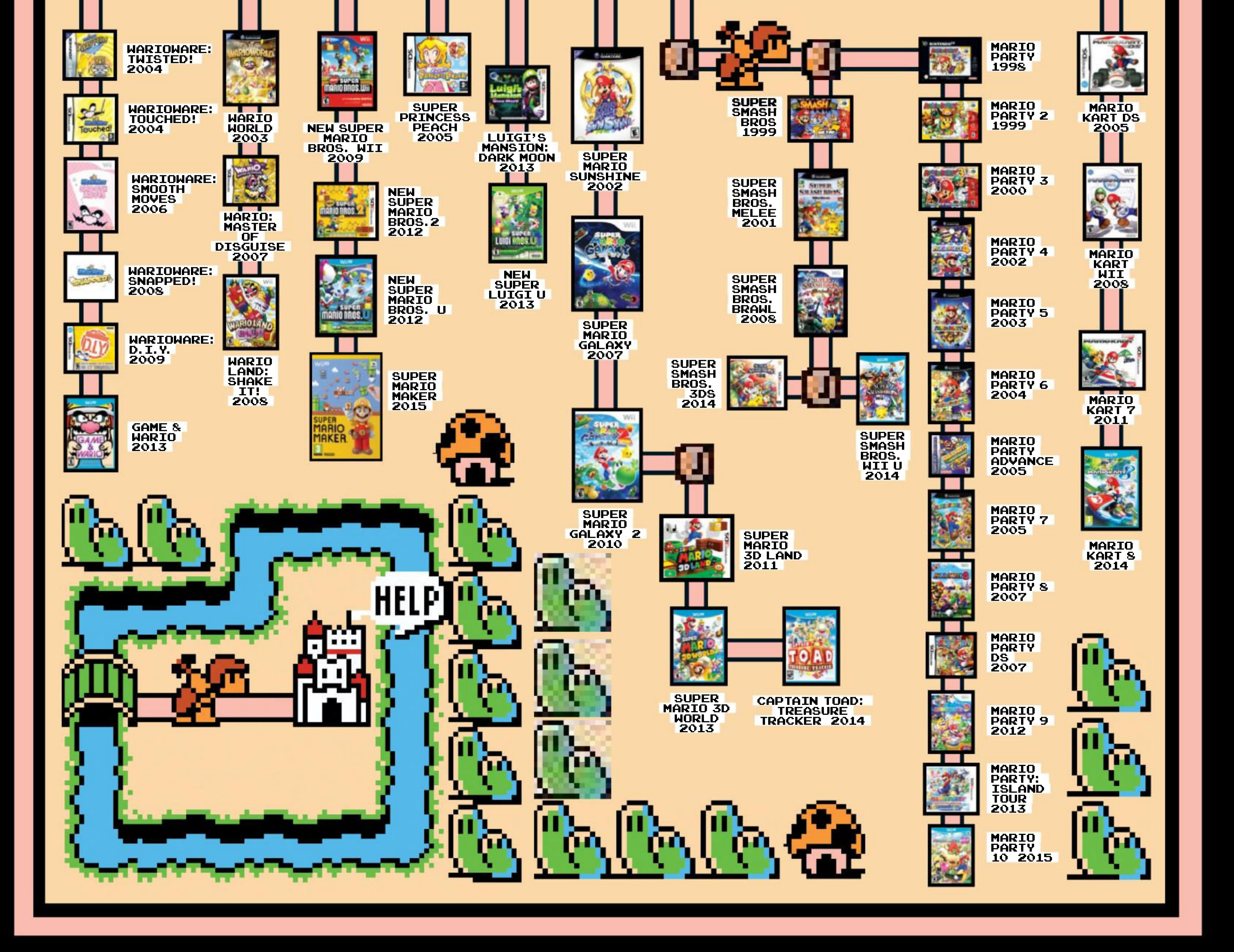
There's another key person, a third person called Toshihiko Nakago who is a programmer and I think when you look at the three of us we've probably eaten half of our meals together in our lifetimes. That's the kind of relationship we have. When the three of us come together and talk it seems like we have completely different perspectives, but ultimately we have the same perspective on what is the issue right now and what is the challenge right now. I think having the three us has been really integral and we've really worked well together throughout the series. 30 years!



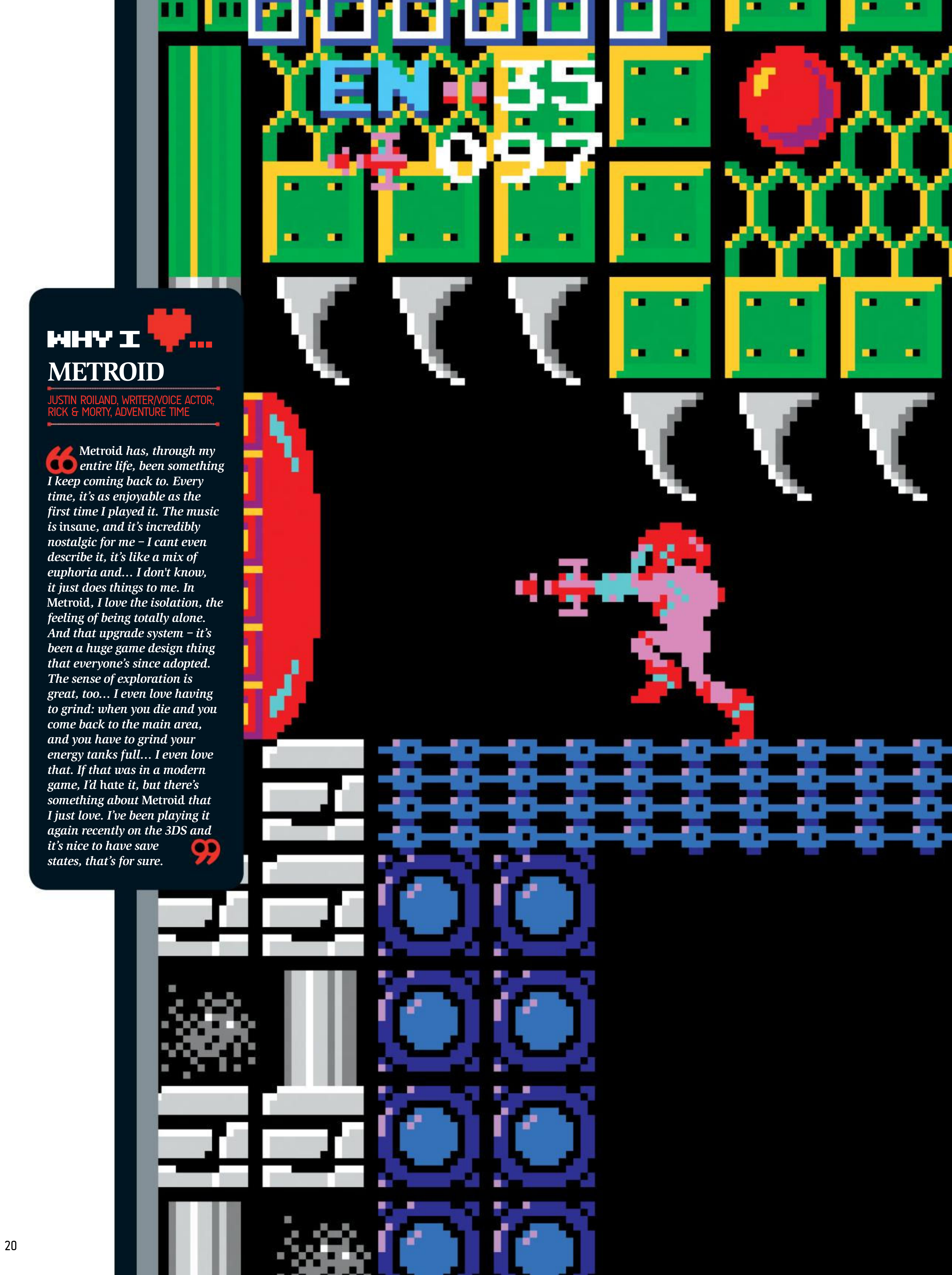
THE SUPER MARIO BROS. FAMILY TREE

THE GAMES AND SPIN-OFFS FROM THE MARIO SERIES





WARIOWARE: TWISTED! 2004
WARIOWARE: TOUCHED! 2004
WARIOWARE: SMOOTH MOVES 2006
WARIOWARE: SNAPPED! 2008
WARIOWARE: D.I.Y. 2009
GAME & WARIO 2013
WARIO WORLD 2003
WARIO: MASTER OF DISGUISE 2007
WARIO LAND: SHAKE IT! 2008
NEW SUPER MARIO BROS. WII 2009
NEW SUPER MARIO BROS.2 2012
NEW SUPER MARIO BROS. U 2012
SUPER MARIO MAKER 2015
SUPER PRINCESS PEACH 2005
LUIGI'S MANSION: DARK MOON 2013
NEW SUPER LUIGI U 2013
SUPER MARIO SUNSHINE 2002
SUPER MARIO GALAXY 2007
SUPER MARIO GALAXY 2 2010
SUPER MARIO 3D LAND 2011
SUPER MARIO 3D WORLD 2013
CAPTAIN TOAD: TREASURE TRACKER 2014
SUPER SMASH BROS 1999
SUPER SMASH BROS. MELEE 2001
SUPER SMASH BROS. BRAWL 2008
SUPER SMASH BROS. 3DS 2014
SUPER SMASH BROS. WII U 2014
MARIO PARTY 1998
MARIO PARTY 2 1999
MARIO PARTY 3 2000
MARIO PARTY 4 2002
MARIO PARTY 5 2003
MARIO PARTY 6 2004
MARIO PARTY ADVANCE 2005
MARIO PARTY 7 2005
MARIO PARTY 8 2007
MARIO PARTY DS 2007
MARIO PARTY 9 2012
MARIO PARTY: ISLAND TOUR 2013
MARIO PARTY 10 2015
MARIO KART DS 2005
MARIO KART WII 2008
MARIO KART 7 2011
MARIO KART 8 2014
HELP



WHY I ♥...

METROID

JUSTIN ROILAND, WRITER/VOICE ACTOR, RICK & MORTY, ADVENTURE TIME

“Metroid *has, through my entire life, been something I keep coming back to. Every time, it's as enjoyable as the first time I played it. The music is* insane, *and it's incredibly nostalgic for me – I cant even describe it, it's like a mix of euphoria and… I don't know, it just does things to me. In* Metroid, *I love the isolation, the feeling of being totally alone. And that upgrade system – it's been a huge game design thing that everyone's since adopted. The sense of exploration is great, too… I even love having to grind: when you die and you come back to the main area, and you have to grind your energy tanks full… I even love that. If that was in a modern game, I'd* hate *it, but there's something about* Metroid *that I just love. I've been playing it again recently on the 3DS and it's nice to have save states, that's for sure.*”



"I even love having to grind: when you die and you come back to the main area, and you have to grind your energy tanks full... I even love that. If that was in a modern game, I'd hate it"

JUSTIN ROILAND, WRITER/VOICE ACTOR







INTERVIEW

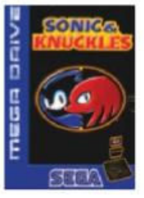
TOM KALINSKE

Call him the underdog but when Tom Kalinske became president and CEO of Sega of America, he was determined not to play second fiddle for too long

SELECT GAMEOGRAPHY



Sonic The Hedgehog 2 (1992)
Executive support



Sonic & Knuckles (1994)
Executive management



Sonic The Hedgehog 3 (1994)
Executive management

When did you first become interested in videogames?
I worked at Mattel, and in the late Seventies we started doing handheld electronic games such as *Football* and *Auto Race*. They were part of my product group and they were successful, but there were also a couple of very talented guys who had the idea for trying to create a videogame machine that was a bit better than Atari. The board got very excited and they spun that division out to form Intellivision. But, frankly, I was a little annoyed because I was the exec VP of the toy division and this was a good piece of business they were taking away.

Is that why you left Mattel?
When Intellivision declined, it just so happened that most of the other subsidiaries of the company also did poorly and by then I was the president of the toy division. They said I had to save Mattel. We had the choice of filing Chapter 11 bankruptcy or finding financing. We went with very, very high interest debt refinancing but it saved the company. You can imagine that my feelings about videogames were sort of mixed. In a way, videogames had caused all of these problems at Mattel. I kind of blamed the board for taking Intellivision away from me.

What did you eventually do?
I became CEO of Matchbox. I brought it out of receivership in the UK, turned it around and took it public. We had really good distribution in Europe and we were starting to build up the distribution in the US and Australia. And then Hayao Nakayama [the then president of Sega Enterprises] contacted me then said, 'Talk us through the handling of our 8-bit business in the US. We think you can do a better job, so we would like you to take that on'. And I looked at it – the Sega Master System versus the NES – and I called him back. I said, 'I don't think you have enough difference here and I don't really want to take that on'. So I turned it down.

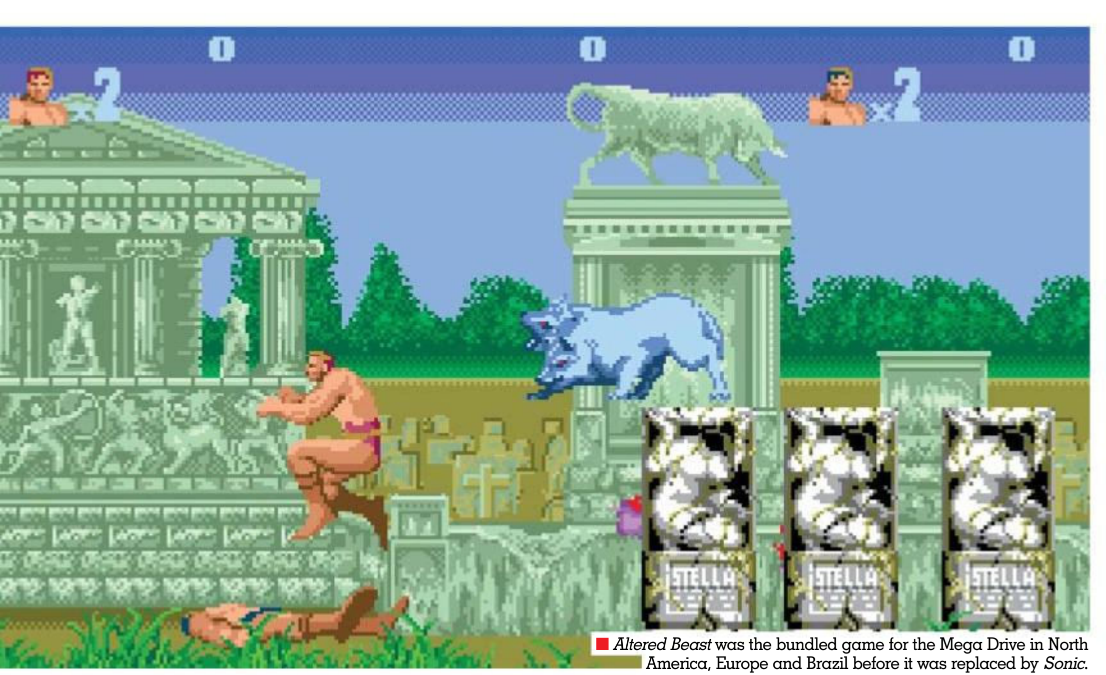
> **NINTENDO WAS FURIOUS WITH US. THEY THREATENED TO SUE A BUNCH OF TIMES**

What made you change your mind?
Eventually we sold Matchbox and I was on a beach in Hawaii on vacation with my young family. Hayao came over and he said I had to see



SEGA'S EA RUN-IN

WHEN TOM KALINSKE discovered EA had reverse-engineered the Sega Mega Drive, he was incensed: "You bet! I went to a meeting with EA and saw Trip Hawkins. I said, 'Trip, didn't your mother ever teach you the difference between right and wrong?' That started things off on a very rocky footing but eventually we ended up making a very good business deal where they got favoured licensing rights and we got *John Madden Football*."



Altered Beast was the bundled game for the Mega Drive in North America, Europe and Brazil before it was replaced by *Sonic*.

the 16-bit Genesis and I had to look at the handheld that was going to become the Game Gear colour LCD handheld. He was very persuasive and so I went with him. I fell in love with the opportunity of doing much higher quality, better graphics and, in my opinion, better games and that is what got me back into it.

What caught your imagination?
I thought the difference between 16-bit games and NES games was very dramatic and that there was a very real opportunity to market the Genesis. I thought the Game Gear was sensationally different than a one-colour, grey, black, white Game Boy. I was really in love with the Game Gear and I thought, boy, full colour on a handheld machine you can take anywhere with you: that's fantastic. The only problem was a limitation on battery. If we had been able to solve that problem it would have been a much better product.

What did you initially do at Sega?
I took a couple of months analysing the market and then I went to Japan with a few guys and presented a five-point plan to the board and said, 'Look, we can really build a business here, but the price of the Genesis is too high and we need to get it down'. I thought we needed to be more competitive and more aggressive with the pricing. We needed to get rid of the software that was included and replace it with our best title, which at that point looked like it was going to become *Sonic The Hedgehog*.

And what did they say?
The board said, 'We don't agree with any of your ideas, you're nuts, get out of here, go home,' but Hayao Nakayama turned up at the door and said, 'Well, I don't agree either but I promised that you would make the decisions for the US, the areas of software and marketing so therefore go ahead and do what you want to do.' And so we did. Without his support it could not have happened.

How did you go about persuading people to buy Sega's machines?
We needed to take Nintendo on in advertising. We positioned them as the little kids brand and us as the big boy, teenage, college-age brand. We also had to develop a lot more software in the United States that was sports-orientated and for older audiences as well as licence software from popular media like movies, TV shows, fighters, NFL or whatever.

Was it important to open the US market?
Nintendo had 98 per cent of the market – they owned it and they were very comfortable owning it. They dismissed third-parties, which ended up working to our advantage. Eventually the third-party developers got pissed off and they slowly started to come over to our side. The big advantage we had was Electronic Arts. They had reverse engineered the Genesis but we ended up having an extremely close and friendly relationship with them. I think at one point Sega in the mid-Nineties represented about 60% of their revenue and around 80% of their profits.

What were the key moments for the console?
Getting Sonic *The Hedgehog* in the hardware. No-one had seen a character with that speed, and colours used in that way. *Sonic* drove massive sales. We were able to introduce *Sonic 2*, which was probably the best *Sonic* game. That did more business than the movies of the year and made $300m or $400m.

How did you get the word out?
We had emissaries on campuses in the US – game players who got a free Genesis and free games and just had to go around playing it and talking up Sega. We did a mall tour where we had a NES and a Genesis and asked people to play and tell us which they preferred. We won 80 per cent of the time in every market in the US. Our TV advertising was very aggressive. We made fun of Nintendo and they were furious with us. They threatened to sue a bunch of times.

Sega ended up with a large slice of the market.
We grew to be the market leader. We also had a good relationship with Sony. They had a studio in Santa Monica and they asked for help to make better software. We sent a team and the head of R&D to teach them to make better software. As time went on, we fell in love with optical disc media but it was hard to find anyone interested in doing something with it so we formed a venture with Sony and we supported Digital Pictures and others to jointly develop CD-ROM optical disc games for the Sega-CD. We learned so much.



Sega adverts were typically manic and they were not afraid of upsetting Nintendo either.



THE SEGA CHANNEL

"THE SEGA CHANNEL is one people often forget," says Tom Kalinske. "It was a huge effort and it helped us in marketing because it showed we were forward thinking, even if people didn't want to sign up. We had 250,000 subscribers at one point. It was a really successful first effort for a subscription service."



There was also the cartridge-based Sega 32X…
The 32X was not so much fun. We wanted to keep Genesis alive for longer. We'd argued with Sega Japan about what the specs of the system might be and then out of the blue the 32X appeared as an intermediate step to help keep the Genesis alive. We could make 32-bit claims about the games. As I recall, Sega of Japan was supposed to do six games for it and we were supposed to do six but everyone had problems. We got one game from Japan and a couple ourselves. We didn't have enough games and the ones we did weren't good enough. That was a big headache for us.

The CD-ROM-based Sega Saturn launched in the same year. Did it confuse the market?
I didn't want to bring out the Saturn at all that year. I was open about that and this was the first time I was overruled. I wanted to wait until the following year and introduce it at the same time as the machines being introduced by our competitors. It was too confusing to market all of these systems at the same time. But the machine was introduced even earlier than we thought. We didn't have enough at the CES show or for the retailers. We could only supply three retailers so the others were pissed off at us and it was just a disaster. It was a really dumb, dumb decision. I blame myself that I couldn't convince him not to do that.

Sega was also key in setting up E3…
In the early Nineties, CES was huge but it treated the gaming industry poorly. We were put in the back, past the new gadgets, computers, stereos and TVs. One year, we were in a tent and it was raining. Our Genesis machines got wet and I said, 'That's it, we're not coming back'. We set out to form our own show with favoured third-parties. It became E3. I actually went back to E3 this year and it reminded me of the past. It was exciting with the AR and VR stuff.



■ Much was made by Sega of the Game Gear's full colour screen. Kalinske says it was one of the things which attracted him to work for the firm.

Before you left Sega in 1996, there was another handheld launch: the Sega Nomad. What happened there?
The Nomad was to be a portable 16-bit system but it was too big. Nintendo would brag that you could put a Game Boy in your pocket and there were a lot of advantages to that.

THE THIRD-PARTY DEVELOPERS GOT PISSED OFF AND STARTED TO COME TO OUR SIDE…

Is size what damaged the Atari Lynx?
Size and not enough software was an issue – it usually comes down to that. The Lynx never got off the ground.

How was life after Sega?
I did a number of things, including setting up Leapfrog to improve education via the use of technology, whether for young kids, older kids or adults. I also helped start 36 different companies. Some failed but at the end of nine years, we had $2 to $3 billion of revenue overall.

There has been a lot of interest in your story. Were you surprised Blake Harris contacted you for his book, *Console Wars*?
Very much so. I thought he was nuts. He contacted me at a New York toy fair and I said, 'Who in the world would care about a six-year time period of the videogame industry?' And he said I didn't understand and that a whole lot of people are really interested in Sega, Nintendo, Atari and would like to hear it. He was very persistent and convinced me. I spent so much time with him in New York City and out here. He practically lived here and interviewed everyone I knew – about 200 people – and wrote the book.

And now it's going to be a documentary and a film…
I am in the documentary a lot, so I'm very much involved there. A lot of it was shot here at my home and in the Sega offices, which was kinda fun. But when you see the documentary, remember I'm not an actor, so you gotta lower your expectation of my performance! But hopefully it will be of interest to a lot of people. It's in final editing now and Blake says he's targeting mid-September to finish it.

Who would you like to play you in the film?
I keep hoping it's someone with an appearance similar to me 30 years ago. My daughters are hoping for a young up and coming actor – Bradley Cooper.

Does your family think it's interesting?
My daughters were very young when this was all occurring but I guess they remember it fondly with all of the Sonic stuff around here. Everyone is surprised at the interest level. I get a lot of calls from people into retro gaming. They ask if I still have Genesis. I usually do.



■ Kalinske believes the plethora of sports games which appeared on the Mega Drive including *NBA Jam* and *FIFA International Soccer* positioned the console to a mature gamer.







THE RETRO GUIDE TO...

GAME BOY

Nintendo's Game Boy may not have been the first handheld console, but it was the first to dominate the industry. Here we investigate its most essential releases

IF NINTENDO'S GAME Boy proved anything, it's that you don't have to be powerful to be the best. Although it launched to an open market in April 1989, it wasn't long before competitors were preparing their own handheld consoles, consoles that would all be far more powerful than Nintendo's 8-bit system. The Lynx arrived later in the year, with the Game Gear and TurboExpress following in 1990. All three systems had better tech, and full colour screens, but none of them could stop Nintendo's miniature marvel.

The Game Boy may have had a monochrome screen, weedy speakers and low tech hardware, but it also had amazing battery life compared to its peers, an insanely good pack-in game in the form of *Tetris* and some of the best platform games around. Sure, it had a large amount of licensed tat, but it also had a surprisingly vast range of different games that covered a large number of different genres, from sports games to RPGs.

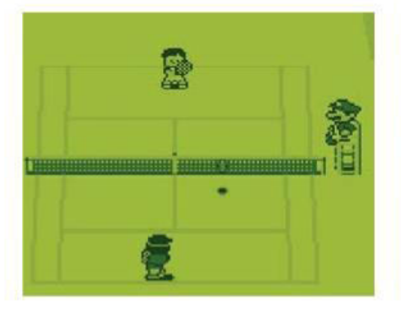
Nintendo wasn't completely ignorant of the handheld scene either, thanks to the earlier success of its *Game & Watch* series, and while its own support was rather hit and miss at times, some excellent catches, including the acquisition of Gamefreak's *Pokémon* franchise, breathed fresh new life into the system while it was halfway through its lifespan. Eventually superseded by the Game Boy Color in 1998, Game Boy allowed Nintendo to create and hold a cast iron grip on the handheld industry, a grip that is only now beginning to weaken under the constant assault of various iOS and Android devices.

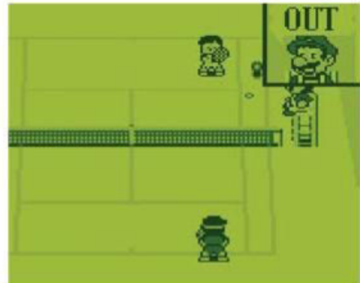


SUPER MARIO LAND 1989

NINTENDO R&D1

■ Mario's first Game Boy outing is a doozy. The visuals may be rather pathetic but they mask some truly excellent platforming shenanigans which would be perfectly at home on a bigger console. There's some decent variety to the gameplay too, with Mario leaping into a ship at several points for some good old fashioned blasting action.





TENNIS 1989

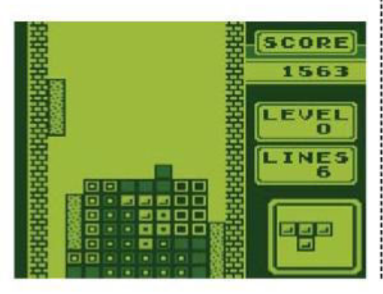
NINTENDO R&D1

■ Until *Mario Tennis* arrived for the Game Boy Color, this was the best tennis game available on a Nintendo portable console. *Tennis* is great fun and arguably the equal to *Tennis* on the NES, which was also by Nintendo R&D1. You can pull off a surprising amount of shots with just two buttons, while the AI proves to be surprisingly challenging across the four skill levels. It excels as a two-player game though, and Mario himself cameos as an umpire.

TETRIS 1989

BULLET-PROOF SOFTWARE

■ With a maddeningly catchy theme tune and highly addictive gameplay it is perhaps little wonder that *Tetris* went on to shift over 30 million units. The nature of Alexy Pajitnov's game makes it perfect for playing on the go, while the two game modes (score chasing and removing a set amount of lines) ensures endless replay value.





BATMAN 1990

SUNSOFT

■ Loosely based on Tim Burton's classic film, Sunsoft's adaptation is an unexpectedly good run-and-gun that plays quite similarly to Nintendo's *Super Mario Land*. While the sprites are dinky, they're extremely well animated and full of character. The level design is tight and there's a great selection of power-ups.

REVENGE OF THE 'GATOR 1989

HAL LABORATORY

■ This is arguably one of the best pinball games on the Game Boy. It has a cute crocodile theme, some charming physics and a well-designed pinball with a pleasing amount to do. The table itself is four screens high and a good size, while there are three additional bonus screens to tackle. It also features an excellent multiplayer game where you must reduce your opponent's points to zero.



DOUBLE DRAGON 1983

TECHNOS JAPAN

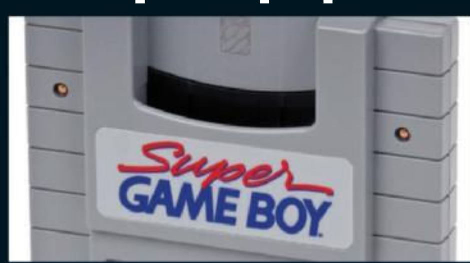
■ All three *Double Dragon* games are on the Game Boy, but the original is the best. While it's not arcade accurate, it nonetheless does a great job of capturing all the scrappyness of its arcade parent. It even manages to cram all the moves into a two-button set up as well. It plays best with a second player, but there's enough variety to keep a single player scrapping to the end.





GAME BOY ADD-ONS Try these peripherals







GAME BOY PRINTER

1998

The Game Boy Printer was released alongside the camera, being used to print out its images. It's also compatible with a number of Game Boy and Game Boy Color games. It's compatible with every type of Game Boy, with the exception of the Game Boy Micro and uses 3.8cm thermal paper with adhesive backing, meaning you can easily make stickers. It's a neat device, but it was power hungry, requiring 6 AA batteries.

SUPER GAME BOY

1994

This rather smart device is the predecessor to the GameCube's Game Boy Player. The Super Game Boy allows Game Boy games to be played on the SNES. Not only that, several games, such as *Kirby's Dream Land 2* and *Donkey Kong* feature expanded, superior sound. Additionally, several games such as *Killer Instinct* and *Wario Blast* let the player use a SNES controller for two-player games.

GAME BOY CAMERA

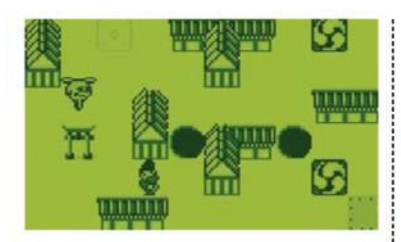
1998

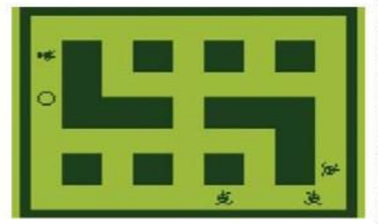
Although the Game Boy Camera was a neat device, it was sadly under-used by Nintendo. It connects to the cartridge port and is able to take very basic photos that utilise the four colour palette of the Game Boy. It's possible to add a number of different lens effects to your images and you can apply stamps to images too. Finally, there is a selection of basic, but fun mini-games that can be played.

HEIANKYO ALIEN 1990

MELDAC

This fun little puzzle game has you trapping aliens by digging holes for them to fall into. Once trapped you fill the holes in to kill the alien. It's a fun concept, and would help influence the likes of *Space Panic* and *Lode Runner* in later years. The levels are extremely well designed with plenty of opportunities to outwit foes - there's an arcade port included too.

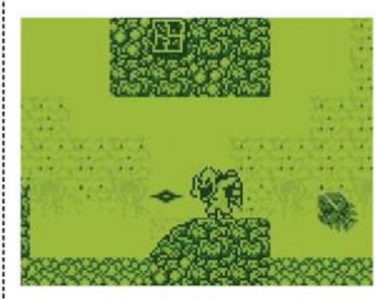


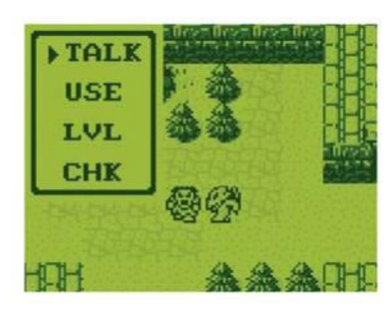


GARGOYLE'S QUEST: GHOSTS 'N GOBLINS 1990

CAPCOM

This interesting spinoff of the *Ghosts 'N Goblins* series has you play as one of the franchise's bad guys. It splits standard side-on platforming with the overhead adventuring and blends them surprisingly well. It's a tough game in places, but the imaginative level design and challenging gameplay keeps you thoroughly absorbed in the action.





F-1 RACE 1984

MIKE SINGLETON

It's not the prettiest of games but there's a huge amount of gameplay crammed into Nintendo's racer. It boasts an exhausting Grand Prix mode, the ability to race in Time Trials and even caters for up to four players for some furious competitive racing. The Game Boy's best racing game.

BALLOON KID 1990

NINTENDO R&D1

The sequel to *Balloon Fight* expands on the original premise by turning it into a side scrolling action game where you must collect balloons whilst avoiding spikes, fire, birds and numerous other hazards. It's a solid game, with some very challenging level design. The traditional one-on-one balloon popping action is kept for the enjoyable two-player mode.



> "ALTHOUGH THE GAME BOY CAMERA WAS A NEAT DEVICE, IT WAS SADLY UNDER-USED BY NINTENDO"

BUBBLE GHOST 1990

PONY CANYON

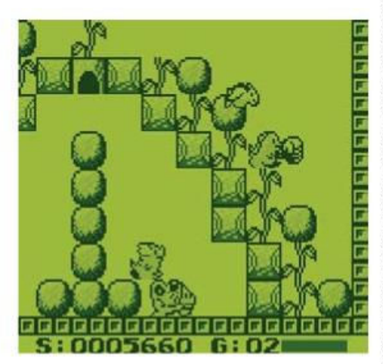
A delightful game where you play as a ghost that must guide a bubble to safety, navigating increasingly tougher obstacle courses. You can only interact with the bubble by blowing on it and must take care not to move it into harm's way. It's an incredibly charming adaptation of Christophe Andreani's original and is perfectly suited to the system.

GODZILLA 1990

COMPILE

■ This is an utterly odd use of the *Godzilla* licence, but entertaining all the same. You play as a cute version of the popular monster and must navigate vines, ladders and platforms to destroy a set number of boulders while avoiding numerous enemies (from the Showa generation). Once he's punched them all to pieces, a tile will reveal the location of the next level. Although incredibly bizarre, it plays extremely well, being a port of an old MSX *Godzilla* game.

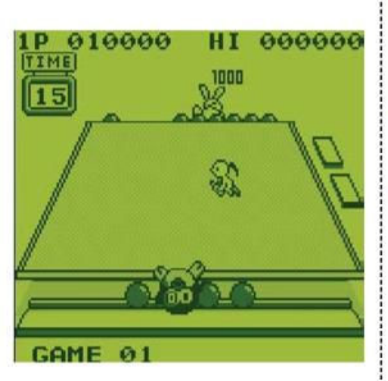




PENGUIN WARS 1990

ASCII

■ This utterly bonkers game has your penguin trying to beat a selection of different animals by throwing balls at them. Get all 10 balls on your opponent's side and you win. It's easier said than done though as you can get temporarily stunned by incoming balls. Crazy fun, especially in two-player mode.



TEENAGE MUTANT NINJA TURTLES: FALL OF THE FOOT CLAN 1990

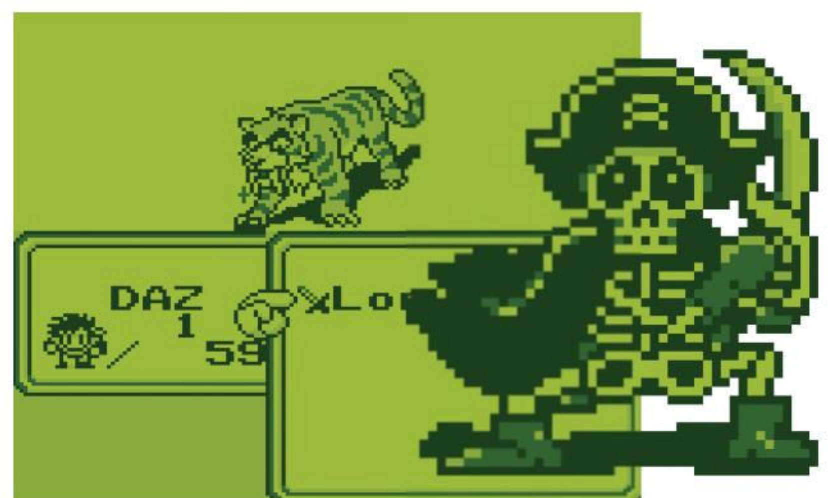
KONAMI

■ Although Konami released several *Turtles* games on Game Boy, its debut effort is easily the most enjoyable. The action is fast and furious, the sprites are huge and there is a lot of variety to the five available levels. It's possible to play as all four turtles and you can choose which stage you wish to start on. In fact, this ace scrolling fighter is only really let down by a lack of a two-player mode.

FINAL FANTASY LEGEND II 1990

SQUARE

■ This is easily the best *Final Fantasy* game on Game Boy and possibly its strongest RPG. The story is surprisingly good, the battle system used is relatively flexible (although you'll lose attacks if an enemy dies while others are still alive) and there are plenty of different character classes to master. As with many similar games there's a large overworld to navigate, but it does suffer from too many random encounters. A Nintendo DS remake appeared in 2009.



PIPE DREAM 1990

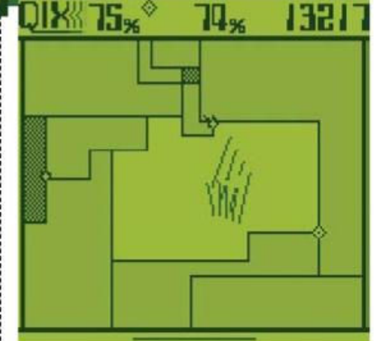
BULLET-PROOF SOFTWARE

■ This fun puzzle game has you laying a pipeline to contain a never ending supply of ooze. Once the ooze clears a set number of pipes you can move on to the next, trickier stage. It's a highly addictive puzzler that becomes even better when playing against a friend.

QIX 1990

NINTENDO R&D1

■ This conversion of the *Taito* puzzle game is superb. You effectively control a marker that must convert as much of the playfield as possible by drawing lines. Get hit by the Qix or the enemies patrolling the outside perimeter and you lose a life. It's simple, but *Qix* is very addictive.

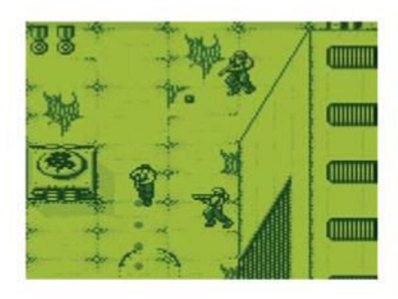




R-TYPE 1991

B.I.T.S.

■ Astonishing is the best way to sum up Jas Austin's stunning port of Irem's arcade game. It replicates the bosses, music and wonderful design of the original enemies and is amazingly balanced too. It doesn't contain every element of the original, but very little is left out. It would go on to receive an equally impressive DX port on Game Boy Color.





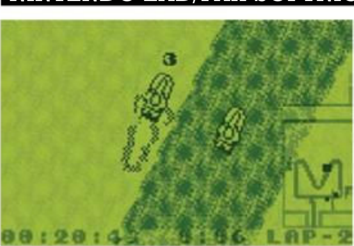
CONTRA 1991

KONAMI

The first *Contra* on a portable system is excellent. The action switches between top-down and side-on views, the graphics are extremely impressive, while the pace is fast and furious. Interestingly, the Japanese version lets you select the first four levels (you'll need the Konami Code for other regions).

WAVE RACE 1992

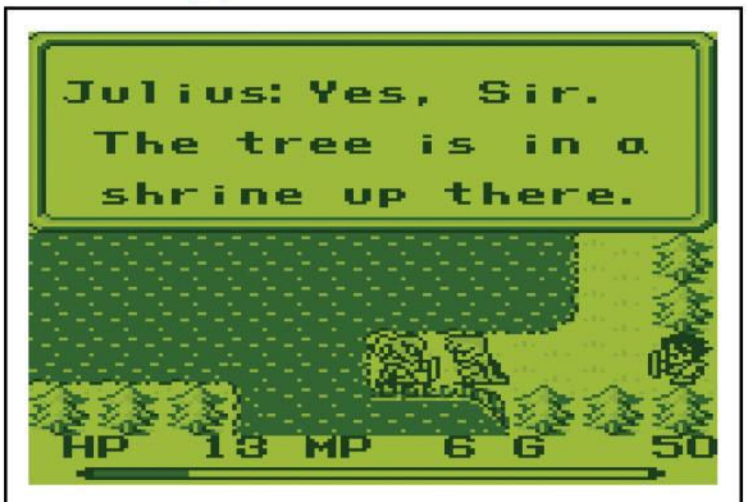
NINTENDO EAD/PAX SOFTNICA



This fun top-down racer is a little easy but is endlessly replayable due to its excellent course designs. Like *Mario Kart* there are various CC classes to master and it also caters for up to four players via link cable. In addition to the standard race courses, it's also possible to take part in slaloms.



"THE FIRST CONTRA ON A PORTABLE SYSTEM IS EXCELLENT"



FINAL FANTASY ADVENTURE 1991

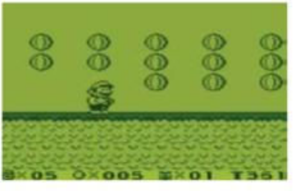
SQUARE

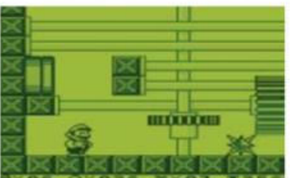
Also known as *Mystic Quest*, *Final Fantasy Adventure* is the first game in the *Mana* series. It's an engaging adventure that builds on the *Zelda* games but adds more RPG mechanics like its *Final Fantasy* parent. It introduces an AI helper character (which would appear in later games) and also allowed you to kill villagers, which was quite the rarity at the time. It's succeeded by several sequels.

SUPER MARIO LAND 2: 6 GOLDEN COINS 1992

NINTENDO R&D1

A gigantic improvement over *Super Mario Land* and one of the Game Boy's biggest games thanks to its huge 4 megabits cartridge. It adds amazing visuals, a large number of levels, challenging bosses and introduces the villain Wario, who would prove so popular he would take over for the sequel.





THE CODER

Jas Austin on Nintendo's micro marvel



What was the Game Boy like to code for compared to 8-bit micros?

I found the transition fairly straightforward. I had previously coded on the ZX Spectrum, and the Game Boy was also based on the Z80 processor.

This meant that I didn't need to learn a whole new machine code language. However, it did of course bring me some unique new challenges, mostly with the Game Boy's hardware support. It was the first time I worked on a machine that had the luxury of hardware sprites and scrolling.

What were the system's key strengths?

I feel its strengths lie mostly in its simple design, both for the player and us developers. While it did have hardware support for scrolling and sprites, it was pretty basic. This forced us coders to think outside of the box to get the most out of the machine.

What were its weaknesses?

As with a lot of the older systems, its main weakness was memory size. Trying to squeeze the games in was always a struggle. Another weakness was its sprite support. Even though it had hardware sprites, there was not only a limit to how many were available screen, there was also a limit to how many could be in a line before they would start to flicker. In *R-Type* for example, I used quite a sneaky method to display more than the hardware was designed to. Because of the nature of the LCD screen, when a sprite was turned off it would take a split second to fade away. I used this quirk to show sprites on alternate frames, effectively doubling the number I could display at once.

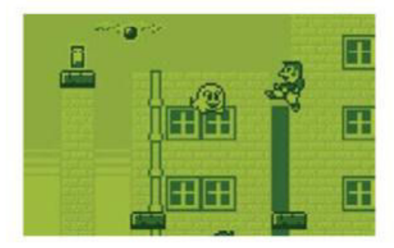
Why was it such a popular system do you think?

I would put this down to the fact that it was a truly portable games system. Around the same time there was also the Sega Game Gear, and while it had superior graphics with its full colour screen, this also caused it to have terrible battery life. Nintendo clearly saw the importance of play time, even over graphical quality. Not forgetting it also had some fantastic games… *Zelda*, *Mario*, *Metroid*, *Pokémon* and *Tetris* to name but a few.

AVENGING SPIRIT 1992

JALECO

■ A great conversion of Jaleco's obscure coin-op. While it's a standard run-and-gun, it introduces a ghost that appears when you die. You then have a limited amount of energy to find a new host so you can continue your quest. It's a great concept, helped by solid gameplay, smart cartoony visuals and some very smart level design.





TRIP WORLD 1992

SUNSOFT

■ This excellent adventure shares similarities with Sunsoft's *Gimmick!*. Your cute bunny-like Yakopoo can transform into three different forms on the fly in order to navigate the game's harsh environments. He has additional forms available via power-ups. There's great variety to *Trip World*'s five gigantic stages, while the graphics and sound are exceptionally good. We highly recommend it.

X 1992

NINTENDO EAD

■ This impressive wireframe shooter was inspired by the *Starglider* series. Designed by Argonaut's Dylan Cuthbert, it has the player completing a number of different training missions that range from escorting cargo to shooting down enemies. Interestingly, it was originally known as *Lunar Chase*, and the US prototype is quite different.



CASTLEVANIA II: BELMONT'S REVENGE 1991

KONAMI

■ Although still short, this improves greatly on Konami's first Game Boy *Castlevania* game. It features better visuals, more weapons from the series and far better music. It's still tough in places with some annoying spawning enemies, but you can choose which level you start on. Like *Contra* and several other games it would pop up on Konami's Game Boy *Collection* series.

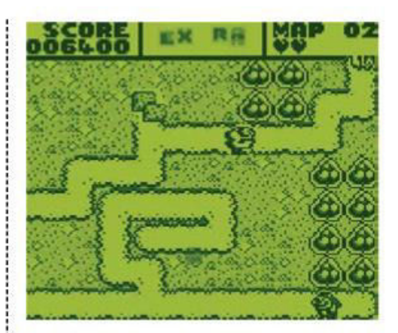


TRACK & FIELD 1992

KONAMI

■ This update of the classic arcade is superb. The graphics are well detailed and exceptionally animated, while there are a total of 11 different events to compete in. Events can be tackled separately or in a lengthy campaign, while the multiplayer mode is excellent. It's easily one of the Game Boy's best sports games.





MR DO! 1992

OCEAN SOFTWARE

■ This is an impressive conversion of the ageing arcade game that adds a remix mode and makes the playing area larger to compensate for the Game Boy's small screen. It's otherwise classic *Mr Do*, with your clown nabbing cherries and using apples to keep the nasties away. A fresh revamp of a 10-year-old game.





METROID II: RETURN OF SAMUS 1991

NINTENDO R&D1



■ *Metroid II* may not have impressed as much as its predecessor, but time has proven it to be a great game, with Samus having to kill a set amount of Metroids to proceed. The levels are atmospheric and begging to be explored, while the enemies and bosses are suitably challenging.

MEGA MAN III 1992

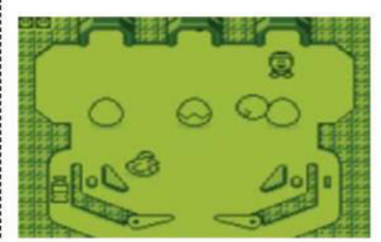
MINAKUCHI ENGINEERING

■ This solid platformer takes elements from both *Mega Man 3* and *4* on the NES. It allows Mega Man to use his robotic dog Rush and features four bosses from each game. It's certainly hard in places, but never frustratingly so.

KIRBY'S PINBALL LAND 1993

HAL LABORATORY

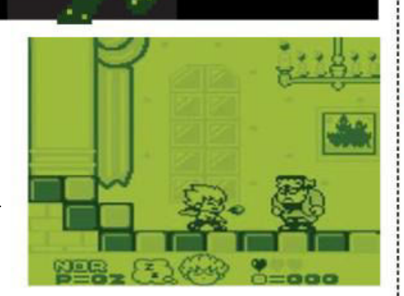
■ This *Kirby* take on pinball is superb thanks to three vastly different pinball tables, plenty of clever play mechanics, great boss fights and a variety of entertaining mini-games. It's known in Japan as *Kirby No Pinball*.



KID DRACULA 1993

KONAMI

This cute platformer is a spin-off of Konami's popular *Castlevania* series. The graphics are far more charming though, while the featured music is a jauntier remake of the franchise's classic tunes. It's a sequel to the Japan-only Famicom game *Demon Castle Special: Kid Dracula* with tough gameplay that belies its cute exterior.



WARIO LAND: SUPER MARIO LAND 3 1994

NINTENDO R&D1

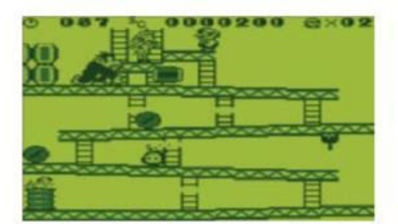


The linear routes of the original *Super Mario Land* return, but this is otherwise a vastly different platformer thanks to Wario's unique skills. It looks superb too, while Wario can pick up three unique helmets that enhance his abilities even further. There are multiple endings too, depending on the amount of money Wario collects during play.

DONKEY KONG 1994

NINTENDO EAD

Created to work with the Super Game Boy, this is a stunning update of *Donkey Kong* that sees Mario collecting keys and carrying them to each stage's locked exit. It builds on the original *Donkey Kong* mechanics giving Mario access to lots of cool new moves.



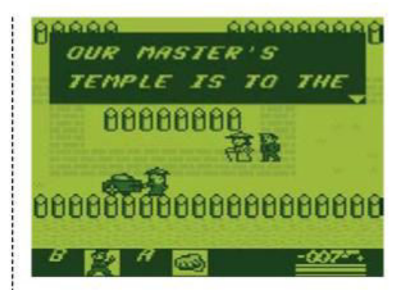


THE LEGEND OF ZELDA: LINK'S AWAKENING 1993

NINTENDO EAD

It may have taken four years for a *Zelda* game to reach the Game Boy but it was worth the wait. *Link's Awakening* is a superb adventure and every bit as good as its home console peers. Set on Koholint Island, Link must solve the mystery of the Wind Fish by retrieving precious musical instruments. A later DX version in 1998 added an additional dungeon.





JAMES BOND 007 1998

SAFFIRE

A late release means that many will have missed this enjoyable *Zelda* clone. Bond must travel around the world, solving puzzles, fighting enemies and playing the odd mini-game of Blackjack and Baccarat. It's a little easy, but there are lots of references for fans, including classic villains such as Jaws and Oddjob.

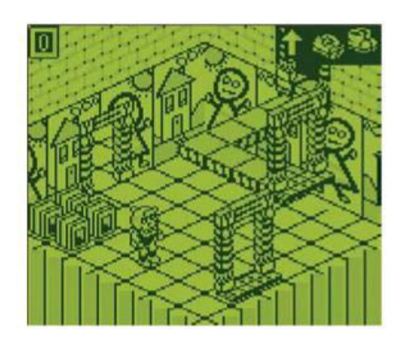
"IT TOOK FOUR YEARS FOR A ZELDA GAME TO REACH THE GAME BOY BUT IT WAS WORTH THE WAIT"



MONSTER MAX 1994

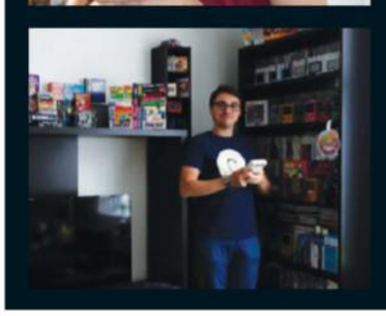
RARE

This brilliant isometric adventure is by Jon Ritman, the genius behind *Head Over Heels*. While it doesn't add anything new to the genre, it's very well designed with devious puzzles and imaginatively designed stages to explore. It was originally planned to be part of the *Mario* universe.



THE COLLECTOR

Mathew Boyle loves Nintendo's handheld



Why collect for the Game Boy?

I collect for the Game Boy not only because it was my first console, but because I believe what the Game Boy achieves is gaming at its purest. Under its limitations, the various titles are all about the gameplay and it really shines through in the console's best titles.

Do you collect boxed or cartridges?

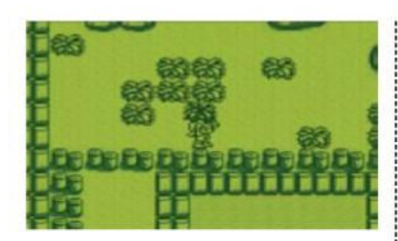
I collect mainly cart only, though I will upgrade to a boxed copy of games I love if I see them cheap or it's not much more than the cost of a cart. I've managed to accumulate the full Euro set and am working on the U.S. exclusives before I start on the Japanese titles...

What are the hardest games to collect?

The hardest games are the region specific ones. Games like *Trip World*, *Amazing Tater* and *Mega Man V* are rare, but they're available because they fetch a higher price. Games like *Lingo*, *Hammerin' Harry* and *Bamse* that are specific region-only games, crawl out of the woodwork only once in a blue moon.

How do prices compare to other systems?

Game Boy is sadly on the rise in price, but there are still great games to be had at bargain prices. Go cart only, as boxes for the system can make £10 games into £300 once a box and manual come into the equation.



HARVEST MOON 1997

NATSUME

It might be greatly cut down compared to the SNES original, but *Harvest Moon* works incredibly well on the Game Boy. Carefully managing your farm and trying to get the best out of your many animals becomes thoroughly absorbing, although it lacks the marriage elements of other games in the series.

MOLE MANIA 1996

NINTENDO EAD, PAX SOFTNICA

This delightful little game has you trying to navigate a series of maze-like areas. Luckily, your mole's ability to dig into soft ground opens up otherwise unseen ways to navigate the stage. It's full of lovely touches, with your mole having to interact with a variety of different items as his adventure continues.



GAME & WATCH GALLERY 1997

NINTENDO R&D1, TOSE

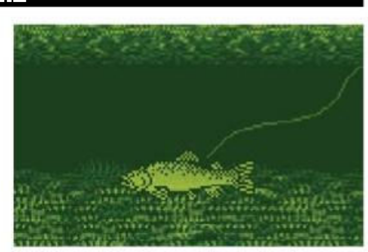


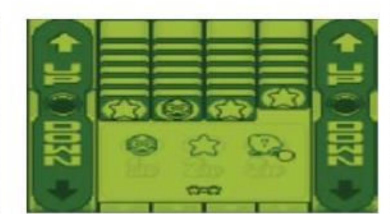
Game Boy's second *Game & Watch* collection features four classics in the form of *Manhole*, *Fire*, *Octopus* and *Oil Panic*. While they're not visually identical to the originals, they do look the part and play extremely well. Modern modes are also included which greatly update the visuals. Two additional sequels followed in 1998 and 1999.

LEGEND OF THE RIVER KING 1997

VICTOR INTERACTIVE SOFTWARE

This excellent little game fuses RPG elements with fishing. It sounds daft but works incredibly well, with your hero fishing his way around the game world so he can catch a mythical fish that will hopefully cure his sister. The fishing itself is strangely compelling, even if it is a little tricky to first get to grips with.





KIRBY'S BLOCK BALL 1995

HAL LABORATORY, NINTENDO R&D1

Another fresh *Kirby* take on a well known game – this time, *Breakout*. Unlike similar games, a bat also appears at the top of the screen, which adds a further level of skill. There are also abilities for Kirby to gain, which enable him to destroy indestructible blocks and other hazards, as well as clever mini-games to discover.



POKÉMON RED/BLUE 1996

GAMEFREAK

A simple idea that was inspired by Satoshi Tajiri's love of collecting insects turned into one of gaming's most successful franchises. Gamefreak's game not only had thoroughly absorbing gameplay, but also captivated youngsters who loved the collectible aspect. It was remade in 2004 for the Game Boy Advance.



KIRBY'S DREAM LAND 2 1995

HAL LABORATORY



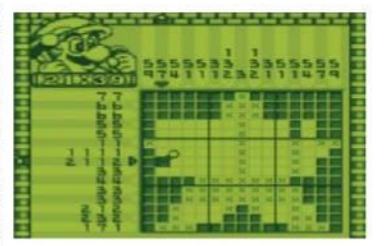
HAL greatly improves on its second *Kirby* Game Boy game by adding cool animal buddies for Kirby to ride. Each helper offers Kirby unique abilities, with the skills getting enhanced depending on the enemy ability Kirby might currently have. It's rounded off by excellent visuals and some insanely chirpy music and features Super Game Boy enhancements.

STOP THAT ROACH 1994

KOEI

This insane turn-based puzzler has you trying to stop roaches from eating various cakes. You only have a set number of options each turn and only a few moves, meaning a fair amount of strategy is required to achieve your goal each stage. It gets very tough, but the clever puzzles keep you hooked for a long time.





MARIO'S PICROSS 1995

JUPITER, NINTENDO

This is Nintendo's take on the popular puzzle game *Picross*. It works extremely well on the Game Boy thanks to well designed puzzles, slick presentation and four different courses. There are 256 puzzles in total, meaning it will take an age to finish. The Game Boy sequels were confined to Japan.

MORE TO CONSIDER…

- KWIRK (1989) ATLUS
- NEMESIS (1990) KONAMI
- DAVID CRANE'S THE RESCUE OF PRINCESS BLOBETTE (1990) IMAGINEERING
- BURGERTIME DELUXE (1991) DATA EAST
- FINAL FANTASY ADVENTURE (1991) SQUARE
- SUPER HUNCHBACK (1992) OCEAN
- PRINCE OF PERSIA (1992) BRØDERBUND
- BATTLETOADS (1994) RARE
- TETRIS ATTACK (1996) INTELLIGENT SYSTEMS
- CASTLEVANIA LEGENDS (1997) KONAMI

GAME CHANGERS

MYST

Released: 24 September 1993 **Publisher:** Brøderbund **Developer:** Cyan **System:** Mac OS



Myst sold 6.3 million units in just nine years – and is still widely celebrated by many as one of the game's that made the CD-ROM into a killer format.

Developed by a sibling duo – Robyn and Rand Miller – Myst was one of the first games to popularise the CD-ROM and succeeded in setting up the non-violent adventure genre, too. We explore the inception and creation of the game, and the impact it had on the industry…

ON ITS RELEASE, *Myst* sat upon the knife-edge of public opinion – it was precariously balanced, with one side of the gaming hardcore lauding its unique approach to exploration and atmosphere, whilst others lamented its slow-burning, plodding layout.

Thing is, that didn't matter – *Myst*'s success wouldn't lie within the devotees of gaming back in the early Nineties, no: it was the general public that *Myst* grabbed by the optic nerves, refusing to let go until players unaccustomed to games had finished the title's final mind-bending puzzle. Despite some underwhelming reviews, *Myst* was the best-selling PC game *of all time* for years after its release. It remained best-seller for just under a decade, *The Sims* took its crown in 2002, nine years after *Myst*'s release.

Myst began life as an experiment – originally meant to be an interactive children's book, where clicking on various items on the picture pages would take you deeper into the book itself. *Myst*'s then-unique UI has its origins here, it was then expanded by Cyan's desire to experiment with interactive storytelling and the creation of non-linear worlds – which, in 1993, seemed more like a pipe dream than a reasonable result.

After creating two children's games, iterating on the core design philosophies that came from that original picture book idea, Cyan was approached by a Japanese publisher (Sunsoft) who wanted the developer to work on a game for an older audience. Cyan had already pitched what would become *Myst*

THE ANATOMY OF MYST

***MYST* MIGHT HAVE BECOME THE DE FACTO TEMPLATE OF THE PUZZLE GENRE, BUT WHAT INFLUENCED IT IN THE FIRST PLACE?**



SURREAL ART

★ Robyn Miller – one of the games developers – painted surreal art on canvases during his adolescence: you can see the impact in-game.



THE MYSTERIOUS ISLAND

★ Jules Verne's 1874 fiction provided much inspiration to Cyan – the game even took its name from part of the book that was set on an uncharted island in the South Pacific.



HYPERCARD

★ Cyan has stated the game wouldn't even exist without Macintosh's very own programming software (ironic considering *Myst*'s PC success).

to Western publishers – namely Activision – but the fledgling publisher rejected the idea, wanting Cyan to stick to kid's games.

Funded by Sunsoft, Cyan began work on *Myst* – which would be completed two years later. One of the core tenets of the game's design was to make it not feel like a PC game – hence the transparent UI that would set the standard for all exploration/mystery games to come after. More than that, though, *Myst* set the standard for immersion in games; its world was incredibly realistic for its time, and needed very little introduction or illustration to let players understand how to play it.

But it wasn't just the graphics that won people over – beautiful and immersive as they may be, *Myst* was also supported by a fantastic ambient soundtrack with music composed by Robyn Miller, one of the brothers that oversaw production at Cyan. Originally, the game was built without music (the developers thought that the score would detract from the overall impact of the game), but after extensive work, a 40-track synthesized OST was incorporated into the game to great effect.

Still, Chris Brandkamp (responsible for the game's ambience and sound effects) opted to compose the world's nascent audio with the same philosophy in mind: realism. Sounds were intentionally amplified to act as a soundtrack of sorts in itself: the team wanted realism, they wanted to convey mood through the sound of waves, of gears, of psithurism. It's another string to the game's immersive bow. This design philosophy was doubled down on in the game's sequel, *Riven*.

The constant quality of the sound and graphics fed into the open world level design – which was built intentionally so the player could get lost in it. This approach to what was essentially a puzzle game (which were ostensibly linear at the time) really shook up the genre. It showed developers and players alike that you could build a world first and foremost, and then shape the gameplay elements around the realism later.

This open world was fleshed out with a story that, again, for its time was a revelation. You were a silent protagonist – The Stranger – who was more of a reactionary force than an active one. You were played off against two brothers that aimed to undo all the work their father had done on the island, and it all played out in a totally non-violent way. The art of the world was therefore constructed to keep the player intrigued, guide them on when there was fairly little action to keep them plugged in.

With its minimalist controls (mouse-based movement and *one* action button), its cinematic presentation and its lack of any distinct action, *Myst* frustrated as many people as it enraptured. But in 1993, when most people owned computers for word processing, spreadsheets or other miscellaneous tasks, *Myst* was a revelation – it was one of the first games to take advantage of the CD-ROM, packing the disc to the brim with sound, graphical texture and world size, and was no doubt revolutionary in bringing casual players into the PC gaming world.

THE CONSTANT QUALITY OF SOUND AND GRAPHICS FED INTO THE OPEN WORLD LEVEL DESIGN

KEY FACTS

- The development team often used to imagine their grandparents trying to play the game when attempting to simplify the UI.
- *Myst* contains 2,500 frames throughout the whole game – one for each possible area the player can explore.
- A parody game, *Pyst*, was released in 1996 – it had no gameplay and featured only an island vandalised by frustrated *Myst* players.
- The PC version of *Myst* could be bought packaged with a CD-ROM Drive, which was not yet a common item on PC towers.



GAME CHANGERS

8 GAMES THAT OWE THEIR EXISTENCE TO MYST

MYST WAS A TRAILBLAZER FOR A PLETHORA OF GAMES TO FOLLOW, SOME OBVIOUS AND SOME NOT-SO-OBVIOUS. FEW NON-VIOLENT GAMES WOULD EXIST WITHOUT MYST. HERE'S OUR COLLECTION OF GAMES INSPIRED BY THAT 1993 MASTERPIECE...



DRAGON QUEST VII

A STRANGE PLACE to start, but by the creator's own admission, *Dragon Quest VII* reverted on the tropes of the series, getting rid of the intense battle systems and replacing them with a more exploration led design philosophy. This was because Yuuji Hori – series creator – played an awful lot of *Myst* during the game's development.



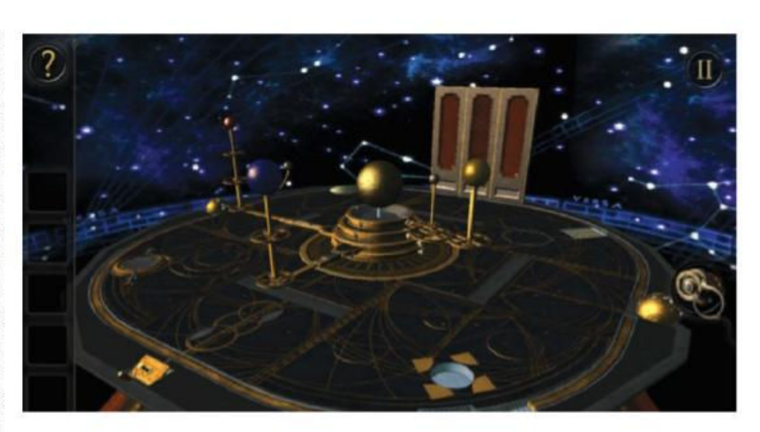
MACHINARIUM

MORE OF A traditional point-and-click than *Myst* ever was, *Machinarium* often draws comparisons to the 3D exploration game, despite its 2D presentation. With a world as isolated and varied as *Myst*'s, an understated soundtrack as well-constructed as *Myst*'s and a selection of puzzles that'd infuriate experienced gamers, it's a perfect spiritual follow-up to Cyan's original.



AMNESIA: THE DARK DESCENT

■ AMNESIA DOESN'T HAVE a huge puzzle focus like *Myst*, but the puzzle design and environmental focus of the game owe a lot to its spiritual predecessor. The psychological survival-horror takes its storytelling beats from *Myst*, too arranging them in a more implicit, player-focused way.



THE ROOM

■ FIREPROOF GAMES' *THE Room* is a gorgeously-rendered puzzle game, constructed entirely in Unity, that focuses around solving specifically 3D puzzles – holding up items, rotating them, discovering what use they have in the context of your current puzzle… it is to iOS what *Myst* was to PC.



THE 7TH GUEST

■ WANDERING THROUGH A mansion, solving a series of logical puzzles and unlocking bytes of narrative at a time, while under the thrall of amnesia the entire time… sound familiar? The *7th Guest*, like *Myst*, split gamer's opinions down the middle, but it's worth a shot if you're into the adventure genre.



GONE HOME

■ STEVE GAYNOR, CREATOR of *Gone Home*, has stated *Myst* as a source of inspiration for the game – noting that the development team took cues from the atmosphere and interactivity of Cyan's effort, but say that they opted to avoid any of the 'crazy abstract puzzle stuff'.



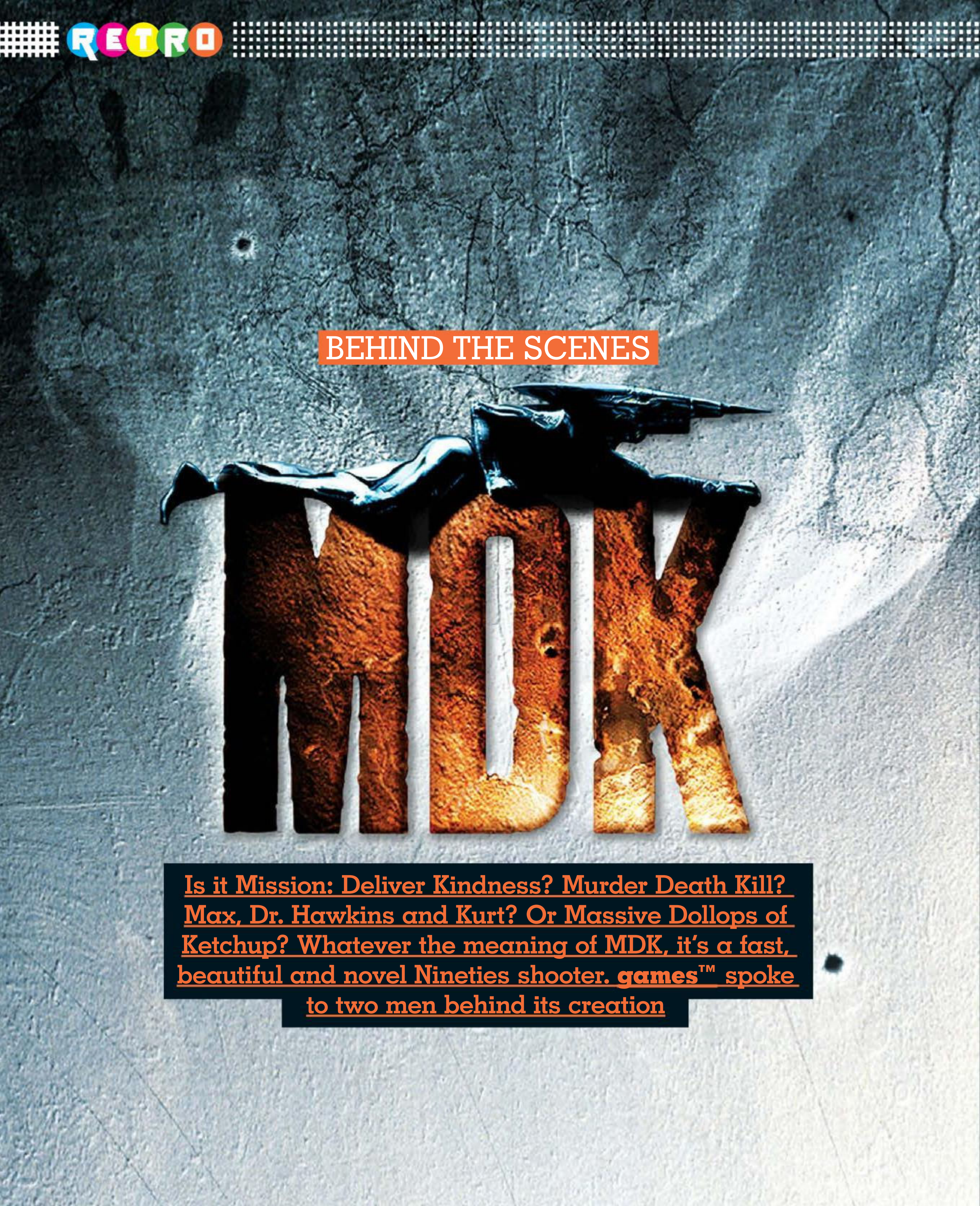
THE WITNESS

■ TAKING PLACE ON a strange island – filled with puzzles and unexplained, advanced technology – there are more than a few similarities to *Myst* in Jonathan Blow's newest adventure puzzler. *The Witness* does away with the rigid structure, though, allowing you to effectively free-roam the whole island.



EVERYBODY'S GONE TO THE RAPTURE

■ THE CHINESE ROOM'S Dan Pinchbeck has actually come out against *Myst*, saying publicly that it's got 'more influence in theory than in practice', but his studio's work in the 'walking simulator' genre would arguably not have the roots it does if it wasn't for the foundations *Myst* laid out over 20 years ago.



BEHIND THE SCENES

MDK

Is it Mission: Deliver Kindness? Murder Death Kill? Max, Dr. Hawkins and Kurt? Or Massive Dollops of Ketchup? Whatever the meaning of MDK, it's a fast, beautiful and novel Nineties shooter. **games™** spoke to two men behind its creation


MDK's elegant vistas remain impressive today.

Released: 1997
Format: DOS & Windows, PlayStation
Publisher: Interplay (Europe), Playmates Interactive Entertainment (US)
Key Staff (DOS/Windows): Nick Bruty (design), Tim Williams (design), Tommy Tallarico Studios (music & sound), Shawn Nelson (design, animation), Andy Astor, Martin Brownlow (coding)
Additional Key Staff (PlayStation): Mick West, Christer Ericson (coding)

THE SEEDS OF *MDK* were sown in 1993 when industry veteran David Perry left Virgin Interactive to form Shiny Entertainment, with several colleagues accompanying him. Having had outstanding success with Disney adaptations of *The Jungle Book* and *Aladdin*, a similar group would work on Shiny's first games, *Earthworm Jim* and its sequel. Part of that team was Nick Bruty. "A few of us left [Virgin] around the same time, shortly after we finished *Aladdin*," begins Bruty. "The others joined a little later once we were set up."

While successful both critically and commercially, the *Earthworm Jim* games were similar to the products Bruty had been working on at Virgin. "*MDK* was a reaction, or outburst, from having worked back-to-back on cartoon games such as *Aladdin*, *Jungle Book* and *Earthworm Jim*," he explains. "Don't get me wrong, I loved working on those games and learning new styles; but my heart is in fantasy and science fiction. I knew straight away that this was what I wanted to do next."

With a chosen style and genre in mind, the genesis of *MDK* happened very quickly, as Bruty explains. "I was doodling one day when I came up with the suit and sniper image. Then the outline of the game arrived about five minutes later!" Bruty formed a new team for his game with only himself and coder Andy Astor migrating over from the *Earthworm Jim* development group. The rest of the team would comprise Tim Williams (story and design), Bob Stevenson (art and design), animator Shawn Nelson and, latterly, programmer Martin Brownlow.

"Bob and I were very good friends," says Bruty, "and we were looking to work together. I took Tim and Bob to lunch and showed them my outline for the game and they were instantly on board. This was before we'd even pitched the game to our publisher. In the end there were only six of us, so there was a lot of overlapping duties." In addition to the fresh line-up, a new system was to be the target for the game. By 1995, the Sega Mega Drive was somewhat on its last legs, looking exceedingly creaky in the face of PC games that took the player into the third dimension.

"I wanted to work on PC because the game was 3D, which wasn't an option on consoles at that point," reveals Bruty. "It also meant I wouldn't have to tone the game down to deal with the Sega and Nintendo's ratings boards," says Tim Williams. "I loved [the concept]. I could see immediately the game would have a unique look and plenty of design opportunities. We were all big fans of the *Alien* movies and HR Giger, so that probably had some influence. But I also just liked presenting people with the unexpected, so that around every corner there was something different and interesting."

Despite the explosion of the first-person-shooter in the mid-Nineties, Bruty was adamant that his suit design for the protagonist, a strange mix of the work of Giger and the movie *Dune*, would not be wasted and remain visible for the majority of the game. "I always wanted third-person for the platforming elements," he adds. "I also feel the player is more involved in the world when they can see their own character."


Relaxing back on the Jim Dandy after mission one.

MOODY, DARK. (KIND OF)

More on MDK's brilliant score

■ **THE SHIFT TO** CD-based storage in the early-mid Nineties created a huge change in videogame music. Having cut his teeth at Virgin Interactive, Tommy Tallarico was in charge of making Nick Bruty's vision for *MDK*'s music a reality.

"We had a good relationship with Dave Perry after the *Earthworm Jim* games," says Tallarico. "I would go into Shiny once a week and spend a whole day implementing the music and working with the designers. Nick had a vision about the music and would give me different soundtracks that he liked, such as stuff by Danny Elfman and *Star Trek* scores."

Tallarico toned down his favoured instrument, the guitar, in favour of a more operatic and orchestral sound, infused with various influences and echoing the game's mischievous sense of humour and together with Todd Dennis and Joey Kuras, created *MDK*'s imperious soundtrack. "For me, art, design and music all go hand-in-hand," he says. "So I listen to film scores while I work. For *MDK*, I listened to a lot of *Total Recall* and *Dune*."



Fellow designer Williams agrees. "We wanted the player to see all the cool actions the main character would be performing, so third-person was the natural choice and challenge we went for." While Bruty states the initial style of the suit was rooted in functionality, it too was a reaction, this time to other games on the market. "At the time most of the other action games out there were very clunky and hardcore-looking," he says. "I wanted something with more flair and elegance. I remember looking at a lot of old Spanish armour for the decoration and flourish."

MDK's plot, given Bruty's fondness for the genre, is classic old-school science fiction. The player controls the oddly-named Kurt Hectic, a janitor in the employ of eccentric scientist Dr. Hawkins. "Bob, Tim and I were watching the Mike Leigh movie, *Naked*," says Bruty. "And there's a scene where David Thewlis is listening to this strung-out guy on the street. The man is talking incessantly and Thewlis stops him to ask 'What is it like in your head? Hectic?', and for some reason that line stuck with us. We went round repeating it for days, so when it came to naming our hero, it just popped up." Williams recalls how the hero got his first name. "Bob and I had a character in another game called Kurt, who was named after Kurt Cobain. And since Kurt's life in *MDK* was pretty hectic, we put the two together."

With Kurt and Dr. Hawkins aboard their spaceship, the Jim Dandy, along with a robotic dog named Max, the Earth is attacked by an army of aliens called Stream Riders. Using energy streams, the aliens invade and systematically begin to strip the planet of its natural resources using giant machines called mine crawlers, not caring if any human cities stand in their way. The Stream Riders' army consists of a variety of robotic creatures, the most common of which is the monkey-like grunt and in a manner similar to the classic arcade game, *Gauntlet*, the grunts are dispensed from generators. Until the specific generator is destroyed by Kurt, they'll just keep on coming.

Kurt's mission is to destroy all the mine crawlers one-by-one and free the Earth from the grasp of the despicable aliens. To help him, Dr. Hawkins has outfitted him with a 'coil suit', an elegant skin-tight armour that protects him from not only enemy fire, but also the pressures of re-entering Earth's atmosphere. Kurt also possesses a chain gun with unlimited ammunition, which is housed within his helmet. When he returns the helmet to his head, the chain gun becomes a hands-free sniper rifle, essential for taking out many of the game's ranged enemies. Yet while Bruty confirms the sniper rifle was the very first thing he drew along with the suit, and that "everything was built around that concept, and all of Kurt's abilities were meant to support it," it was only originally meant to be used at the end of each level.

"It was going to be a game where you just run and gun," explains Williams. "But then we decided to free the player to switch into sniper mode whenever they wanted." Finally, our hero has a parachute strapped to his back called a ribbon chute, which opens whenever he falls. "The ribbon chute was again part of the original design," says Bruty. "I wanted the main character to be much more aerial, like Spider-Man. I wanted him to be able to cling to walls as that was the whole point of a hands-free sniper rifle." Doctor Hawkins supplements these abilities by dropping useful items such as grenades and bombs to help Kurt penetrate each arena.

Work proper began on *MDK* early in 1996. Two things were considered paramount: the art style and pace of the game. "Bob [Stevenson] and I split artwork duties,"



Another beautiful scene, this time from level two.

WHAT THEY SAID...



Shiny has created another stylish, funny shooter which lands solidly in the 3D shooting adventure gaming genre, with a heavy emphasis on shooting.

GameSpot, 1997


MDK developers Nick Bruty (left) and Tim Williams (right).

says Bruty, "and between us we built everything you see: levels, characters, special effects. I love coming up with stuff like that, but building it was another matter." Initially, *MDK* had just one coder on board. "We had Shawn [Nelson] on animation, and the last to join was Martin Brownlow. Until then, Andy Astor had been programming the game single-handedly. Smart guy!" Being the mid-Nineties, there was no such thing as off-the-shelf engines for developers to work with – *MDK* had to be built from the ground up.

"Also, 3D was very new back then and we were scrambling around in the dark trying to work out what was possible," notes Bruty. The game was being developed at an awkward time: 3D gaming was burgeoning thanks to the runaway success of *Doom* and *Quake*, but the arrival of graphic 3D hardware cards had yet to have a notable effect on software development. *MDK*'s graphics would be designed to operate in software, making their speed and beauty even more impressive, with patches soon available after release to take advantage of hardware accelerators.

"We had no idea how fast we could get the engine when we started," remembers Bruty. "The game would run too slow if we textured everything, so some parts were just flat-shaded for speed. We did our best to make that look like a design choice, or shadows, but it was a tricky balance." Tim Williams took Bruty's concepts and worked them into the game environment, with the need for speed paramount. "I wanted it to be fast and seamless," he says, "so that you could run along, jump, go into a glide, and then suddenly get lifted up onto a rooftop by a vertical fan, all without too many button presses."

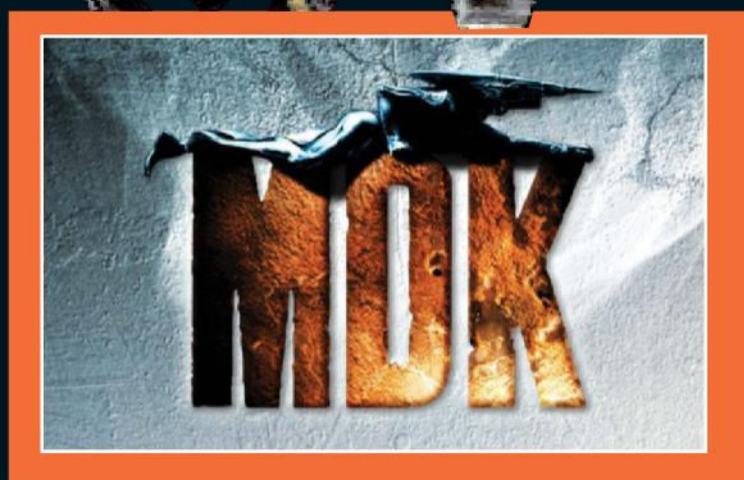
While the core game and imagery remained similar to Bruty's original design, bizarre elements began to creep in, such as a headache-inducing bright paint-splat colour level and a pick-up entitled the 'world's smallest nuclear explosion'. "There was no-one to rein us in so we just kept pushing it further and further," says Bruty. "If it made us laugh or gasp, it went in!" Other levels included an insane asylum and a fully-operational submarine that takes Kurt beneath the waves. Animator Shawn Nelson did the team proud by creating an impressively nimble lead character. "Although we did waste a small amount of budget on a very early motion-capture system that completely failed to work in any way," recalls Bruty wryly. "However, we got to make Tim [Williams] dress up in a leotard, so it was almost worth it!"

Bruty and his design colleagues also got the opportunity to be particularly inventive inside the tunnel sections that linked each enemy-laden arena. While these effectively acted as cover for the loading of the next stage, Bruty and Williams found ways to make

WE WANTED THE PLAYER TO SEE ALL THE COOL ACTIONS OF THE MAIN CHARACTER

these areas more exciting for the player. "In my experience, such mini-games can almost happen by accident," notes Williams. "And that was the case with the snowboarding part." In one of the later tunnels, Kurt must dodge enemies while descending at breakneck pace. Like all of these sections, it neatly breaks up the relentless shooting action of the arenas. "I had planned for a unique motorbike for Kurt," says Bruty, "with these large roller balls, but it only got as far as a sketch. We also wanted more situations where you climbed inside enemy robots such as in the first level." At the conclusion of this part, Kurt must clamber inside a pyramid-shaped alert robot in order to bypass a particularly well-fortified gathering of enemies.

However, any plans for further complexity were soon abandoned, if considered at all. "We wanted things pretty



THE NAME GAME

So what does MDK actually stand for?

■ **EVEN GAMES™ WOULD** have to admit it was an inspired advertising campaign, and today the true meaning of the acronym 'MDK' remains cloudy. Two popular theories were *Mission: Deliver Kindness* and *Murder Death Kill*, with the latter having debuted in the Sylvester Stallone sci-fi action movie, *Demolition Man*. "Actually, you've managed to pick my favourite and the actual name there," says Bruty teasingly. But while Tim Williams clarifies and confirms *Murder Death Kill* as the team's original idea, they were soon all pondering over alternative meanings. "My contribution was *Mission: Deliver Kindness*," says Williams, "so that, for me, was what *MDK* meant." Other possibilities included *Mother's Day Kisses, Max, Dr. Hawkins And Kurt* and *Massive Dollops Of Ketchup*.

FROM PC TO PLAYSTATION

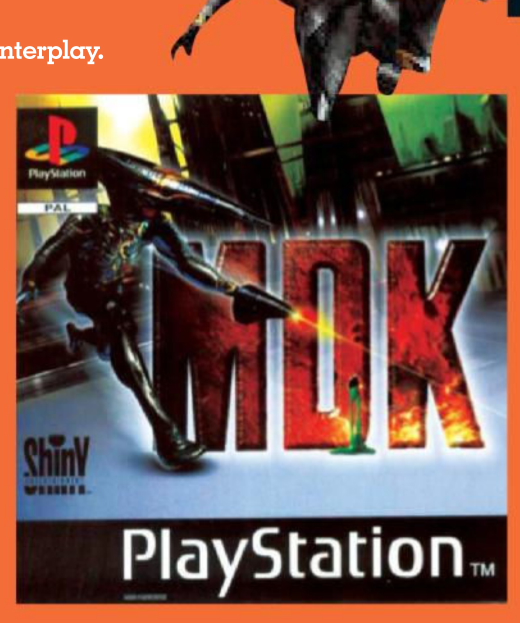
Mick West of the Neversoft team takes us through its PlayStation conversion for Interplay.

■ "*MDK* WAS MY type of game, a fun shooter, although we weren't involved until about half way through its development. I also liked the odd combination of stylistic settings combined with humour.

"But they [Shiny] didn't have the available staff to do the PlayStation version, and they needed it done by the holidays. We tried to keep as much of the code unchanged as possible but the graphics had to be downsized to fit into the PlayStation, both for the reduced memory and for the lower polygon-pushing power.

"The biggest technical issue was fitting everything into the memory as the console had about a quarter the memory of the PC. This was largely done by simplifying graphics and loading things incrementally. We also spent a lot of time tweaking the control system as it's hard to simulate a mouse with just a D-pad. Fortunately the sniper mode, despite requiring fine accuracy, was slow-paced, so fairly easy to line up with the pad; but there was a lot of code going on under the hood to help the player hit the target.

"It was a pivotal game for me personally, but it was rushed out and had loads of bugs. It was a nightmare to finally finish. But I learned from it and it was an outstanding game for the time, and still holds up today."







PC Review	
Category	3D Action
Players	1
Difficulty	Medium/Hard
Review Date	5/97
Publisher	Shiny, Playmates Interactive Entertainment

"Aim a little lower...no, lower...there, right there!"

MDK is fun to play and has a great sense of humor. [It] combines sweet graphics and revolutionary gameplay and design concepts to put it in a class by itself.

Game Revolution, 1997



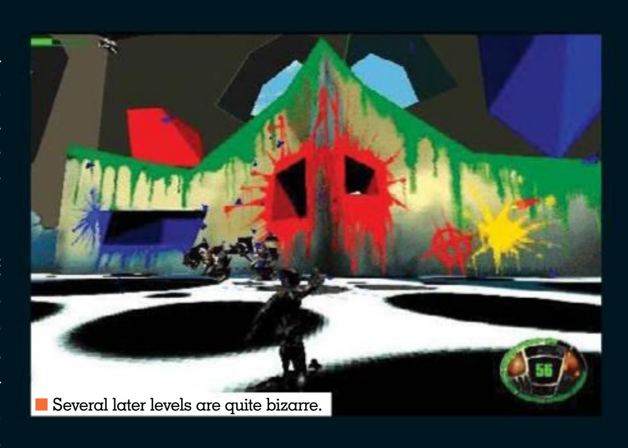
simple in this game. Just fun action, with surprises, and innovative weaponry," says Williams. Bruty reinforces this, stating, "I would have only included more gameplay elements if the game had been more open world. But as a linear game, no. It was more fun to make unique items in specific locations and keep surprising the player. I definitely wanted the player to have no idea about what was going to happen next!"

Before we move on to the commercial release of *MDK*, **games™** asks its two designers about the game's manual. Bruty smiles. "We thought the manual would be handled by the publisher, but they passed it to us and we just tried to make it more interesting." After the obligatory system notes and guide to controls, *MDK*'s manual is taken over by the ever-so-slightly-unhinged Dr. Fluke Hawkins and his journal. Written by Tim Williams in a humorous style, it sets up the game effectively.

"I wrote it, and I suppose that was my way of getting more character into the game," he recalls. "The idea of writing a manual – at the last minute – was very boring to me, so I wanted to create something fun for not only the player, but for myself as well. And then Shawn Nelson drew the illustrations throughout. It was actually fun, and we got it done very quickly." Having fostered a love of *MDK*'s characters and their interaction, Williams went one further and wrote a screenplay, before moving on to other projects.

For the initial pitch to *MDK*'s US publisher, Playmates Interactive Entertainment, Bruty created a set of storyboards in an attempt to adequately sell the game. "It was a disaster," he cringes, "as I could see they were expecting another *Earthworm Jim*-type game. They had no idea what was going on with snipers and ribbon chutes." Midway through Shiny's unfortunate pitch, the result of the O.J. Simpson trial was announced.

"So they all rushed out of the room to watch that," recalls Bruty, "and we realised storyboards were not going to cut it. So we rushed out a video concept in a few weeks and that hit the spot – we were instantly greenlit. After that they left us mostly alone. Having done *Earthworm Jim* for them, they felt they were in good hands, and David Perry played the ambassador, meaning I had little dealings with them – which is how I like it!"


Several later levels are quite bizarre.

THERE WAS NO ONE TO REIN US IN SO WE JUST KEPT PUSHING IT FURTHER AND FURTHER

MDK was a critical success both domestically and in the US. With the stiff competition **games™** mentioned earlier, sales were harder to come by. "But it did sell well, despite not being a blockbuster," remembers Bruty. "And obviously enough to warrant a sequel. Everyone wanted us to do *MDK2* straight away, but I wanted a break from it. I hadn't liked rushing from *Earthworm Jim* to its sequel without a creative break, and I felt the game suffered because of that." With another project in mind, the sprawling epic *Giants: Citizen Kabuto*, Bruty and Williams left Shiny while hoping

> A GAMING EVOLUTION MDK > GoldenEye > Sniper Elite



MDK pioneered the use of a free-form sniper rifle in first-person view, that would go on to be mimicked by plenty of games.



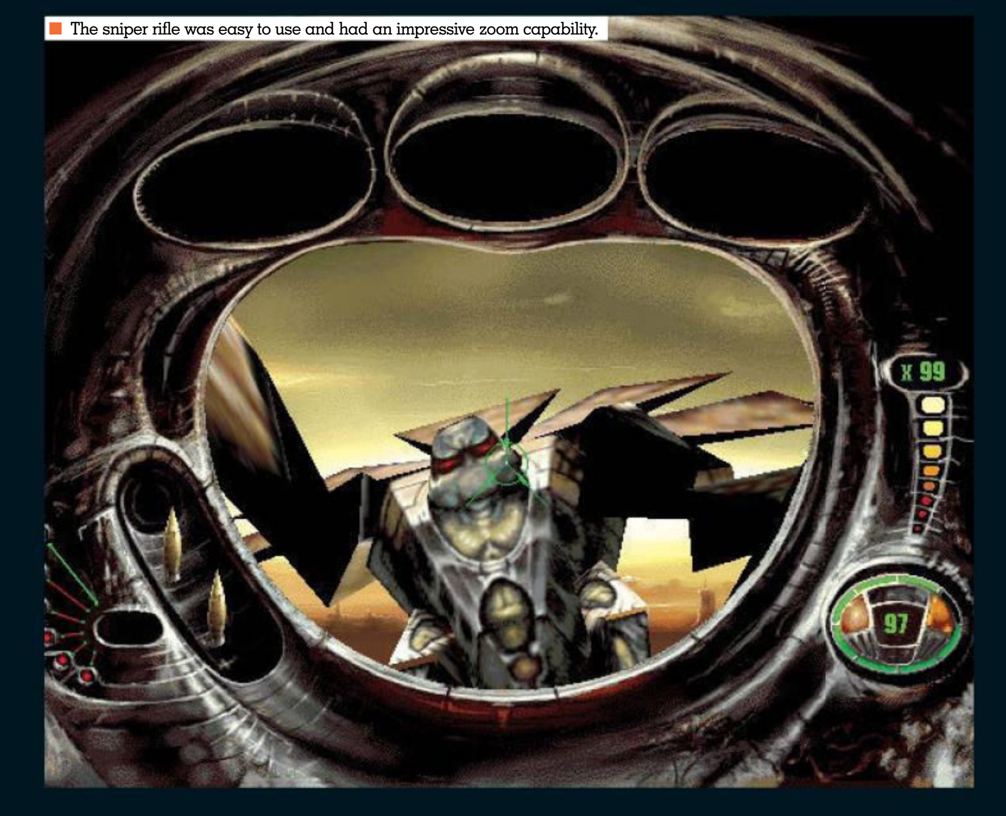
Rare's *GoldenEye* popularised the concept before *Sniper Elite* turned it into an entire basis for a game.



Interplay would wait until they were ready. "But they wanted to move forward, so I had to let it go. It was tough, but they were funding *Giants*, so I didn't have any beef with them. It was just one of those things."

With a focus on gameplay dynamic and art style, Shiny created a game that is revered still today, and just as playable as it was almost 20 years ago. "I'm very proud of what we accomplished, and the fact we did it with such a small team," says Tim Williams. "It could only be done by us all wearing different hats and mucking in together. I think we're seeing some similar development these days with small indie teams and that's pretty much how it was for us."

Nick Bruty ultimately reflects on how a new IP such as *MDK* was given a relatively easy ride; a rare occurrence today as well as in 1997 when the game was released. "I enjoyed that period of time when major publishers like Interplay would take a chance on a new property like that. Sadly, after *Giants* and *Armed & Dangerous*, no-one wanted to take those risks anymore. Hopefully crowdfunding can help us return to making these types of games again." While maybe not original in terms of gameplay, MDK certainly had enough style and humour to set it apart from the crowd. "I've heard that many people see it as a classic which is interesting," concludes Williams, "because it was by far the most fun I've ever had working on a game."



The sniper rifle was easy to use and had an impressive zoom capability.

MDK's sequel recently received an HD remake.



> "You're really trying to balance and create a colony and you're trying to trade with the old world"
>
> **FEARGUS URQUHART – CEO, OBSIDIAN ENTERTAINMENT**



WHY I ♥...

SID MEIER'S COLONIZATION

FEARGUS URQUHART – CEO, OBSIDIAN ENTERTAINMENT

It's often a toss up and they're similar, but I'll go with possibly the less known [game]... And it's super old. It's Colonization *by Sid Meier and it is a game that I probably return to about once a year, maybe once every two years. I've never beaten it. It's a very interesting take on* Civ *– it was built on the* Civilization *engine, it came out in about '94 I think. They eventually did a Windows version of it, so there's sort of a newer version that you can find.*

When you're playing Civilization *it has this cadence; you just keep building and building and building. And eventually you either go and kill people or you take them over with political power and stuff like that. But* Colonization *was so interesting in that you had the goal of you needed to revolt against England, and so you had this specific thing you were trying to do and if you didn't do it right, and I never can do it right, they just land a bunch of troops and kill you.*

But in all of that you're really trying to balance and create a colony and you're trying to trade with the old world. I think Sid did an amazing job and it's an under-appreciated game. Obviously the graphics are pretty old, but they redid it using the Civilization 4 *engine (I think), so you can get it as an add-on to* Civ 4 *and it's pretty good, but I would say that the original one is still a little bit better.*



THE RETRO GUIDE TO...

IMAGINE SOFTWARE

games™ looks back at every game from one of the most infamous software labels of the Eighties. How many of the following did you play?

IMAGINE SOFTWARE STILL remains one of the gaming industry's biggest cautionary tales. Set up in 1982 by Mark Butler and David Lawson, the Liverpool-based developer quickly earned a (rightful) reputation for its high-quality games and its unique, forward-thinking approach to packaging and advertising. Despite its outward appearance, all wasn't as it seemed at Imagine Software and even by December 1983 rumours were circulating that the company might be in some sort of financial trouble due to unpaid advertising bills.

Everything sadly came to a head for Imagine Software when it was chosen by BBC television director Paul Anderson to be the focus of its latest *Commercial Breaks* episode. Although there was initial reluctance, Imagine eventually agreed to participate and the documentary remains one of the only ways that you can still see footage of its legendary 'MegaGames', *Bandersnatch* and *Psyclapse*. Anderson was expecting to get a glimpse into the exciting and up-and-coming videogame industry, but instead he famously managed to film a company in tatters.

Imagine Software was unable to pay its huge debts and Ocean Software acquired the label, primarily to use it for its numerous arcade conversions. Eventually though, even Ocean tired of the branding and quietly closed the label down after the release of the dire *Victory Road*. The original Imagine Software burned briefly but brightly, but its legacy lives on due in no small part to a truly cracking collection of great early games that entertained many a VIC-20 and Spectrum owner.





ARCADIA 1982

VARIOUS

Imagine's first game by co-owner Dave Lawson highlights a technical proficiency that would lead to its many arcade conversions. *Arcadia* is a tough but fair shooter with you shooting down wave upon wave of deadly aliens that diagonally descend towards you. Graphically it's a little on the basic side, but the simplistic looking sprites allow for some extremely hectic gameplay.

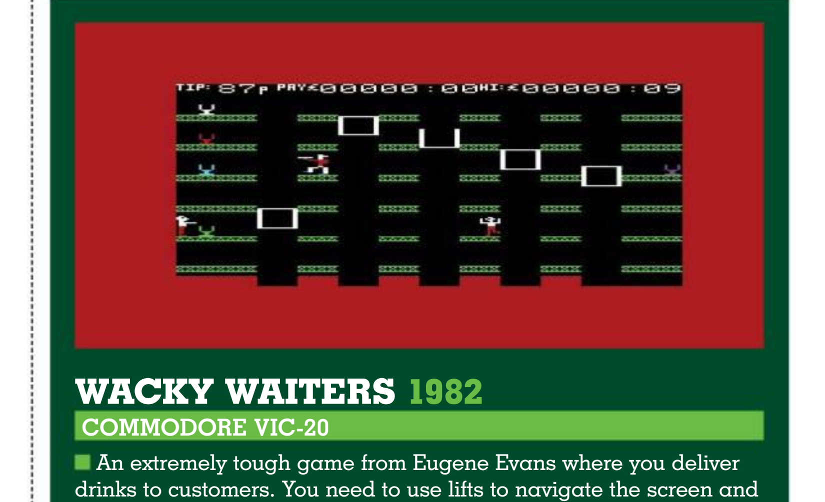
FRANTIC 1982

COMMODORE VIC-20

This is one of the early efforts from Imagine's Eugene Evans, who appeared in several news stories during the company's heyday because of his unusually young age at the time. The aim in *Frantic* is to track down enemies in your gun sights and shoot them down. It's made trickier by the erratic actions of your opponents and the fact that you only have a limited amount of fuel with which to achieve your goal. Frantic by name, frantic by nature.







WACKY WAITERS 1982

COMMODORE VIC-20

An extremely tough game from Eugene Evans where you deliver drinks to customers. You need to use lifts to navigate the screen and switch between platforms, which is far harder than it sounds. While it's fast-paced and reminiscent of early arcade games, it's also rather hard due to some questionable collision detection.

CATCHA SNATCHA 1982

COMMODORE VIC-20

An interesting take on the maze genre that revolves around recovering lost items in a shop. You must drop them off at specific locations, which will keep your approval level high. Let it drop to zero per cent and you'll receive one of three written warnings. The game is made more difficult by customers dropping off bombs that must be disposed of as quickly as possible.





AH DIDDUMS 1983

VARIOUS

This is another early effort from Dave Lawson and an interesting one to boot. You play a teddy bear trying to escape toy boxes by building steps with building blocks. While the concept is sound enough, it does suffer from tiny, flickery visuals and a rather steep difficulty level.

BEWITCHED 1983

COMMODORE VIC-20

Here's an interesting, but infuriating take on the maze genre. You must use colour keys to open locks that will allow you to slowly navigate through the gigantic maze. You can only carry one colour key at a time, which would be fine if it wasn't for all the infuriating ghosts that haunt the maze's corridors. Oh and some doors hide dead ends which only adds to the frustration.

REMEMBERING A LEGEND

Jim Bagley pays tribute to one of Imagine's best coders

When did you start working with Jonathan Smith?

I started working with Joffa in 1988, when I started at Special FX working on *Gutz*, which was a great moment for me – to work alongside someone who had already done so many great games! He shared so many great tips with me like his push scroller tech that I used in *Gutz*, which was great.

What was Jonathan like to work with?

Although he was in reality a shy person he was always a laugh, and helpful, if you ever asked a question about anything. I had the pleasure of working alongside Joffa for about nine to ten years, and we had a lot of laughs and good times that I will cherish.

What would you consider to be Jonathan's finest Imagine game and why?

Personally I would consider *Green Beret* his finest game because it had many of his trademarks in, it had his fast push scroll, it had his multi channel music driver, and most importantly in his games it had humour, he always liked to add humour to his games, I used to love playing it after school with my mates.

What was it exactly that made Jonathan's Imagine games so special?

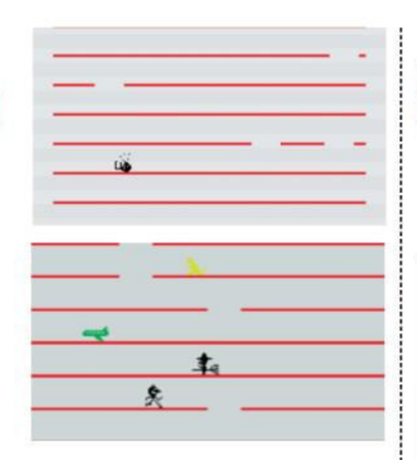
Joffa was more than just a coder. He was one of the very few that were not only a great coder but a great artist as well. There are not many people who are good at both coding and art – it's usually one or the other, and only very rarely both.



JUMPING JACK 1983

VARIOUS

This is one of Imagine's ugliest games with pathetic stick men and extremely simplistic sprites. Despite this, it's actually a highly addictive game with the aim being to jump through the gaps of each platform until you reach the top of the screen. As the levels progress more and more annoying hazards appear, turning *Jumping Jack* into a highly challenging game. Fast-paced and very, very fun.

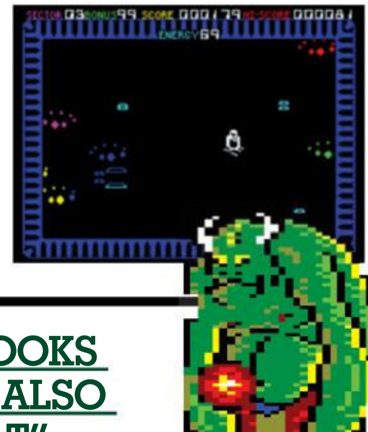


ZIP-ZAP 1983

ZX SPECTRUM

The most remarkable aspect of *Zip-Zap* is that it shamelessly rips off the main *Star Wars* theme for its title music. It's an otherwise tediously dull spin on *Jetpac* where you fight through the cramped playing area collecting keys so you can move to the next equally tedious stage and die a little inside.





"EVERY VERSION LOOKS INCREDIBLE BUT IS ALSO INSANELY DIFFICULT"

SCHIZOIDS 1983

ZX SPECTRUM

This is an interesting cross between *Asteroids* and *Thrust* and it's just as much fun. Rather than shooting objects down you must use your intergalactic dozer to dump them into the black hole in the centre of the screen. It takes a while to get used to the controls, but it ultimately becomes surprisingly addictive.

STONKERS 1983

ZX SPECTRUM

This is arguably one of the earliest real-time strategy games and was coded by John Gibson. Despite shipping with a number of bugs, its comprehensive gameplay, which saw you controlling infantry, tanks and artillery and some challenging AI ensured it became a firm favourite with Spectrum fans.

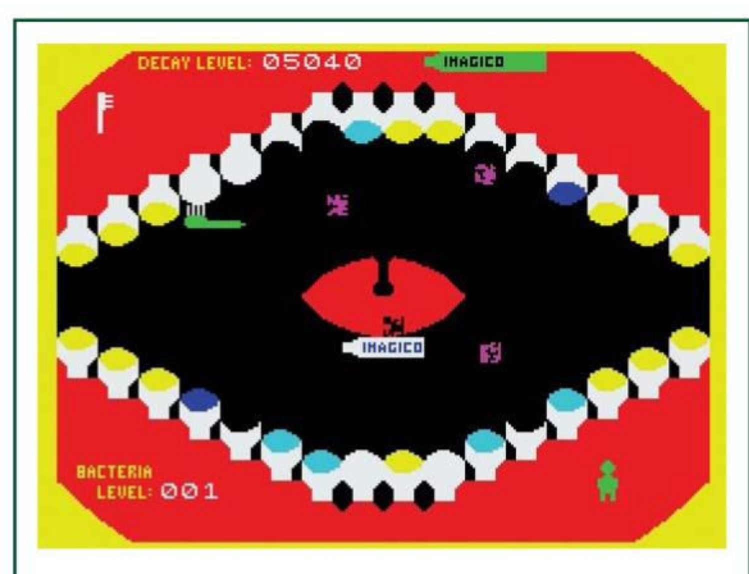




ZZOOM 1983

ZX SPECTRUM

John Gibson made a number of hugely impressive games at Imagine, and this one is undoubtedly our favourite. You zoom around in a ship picking up humans while avoiding wave after wave of incoming enemies. The ground itself is a constant hazard too, so you need to make sure you don't fly into it. Although it can be tough, *Zzoom* is an amazing technical achievement for so early in the Spectrum's life.



MOLAR MAUL 1983

VARIOUS

As its name suggests *Molar Maul* is a battle – a battle against poor mouth hygiene. Use your trusty toothbrush to scrub away germs and bad fillings before the decay level rises too high. It's another fast and furious action game from Imagine and yet another dynamic offering from the inventive John Gibson.

ALCHEMIST 1983

ZX SPECTRUM

This early adventure game has some lovely touches including the main character's ability to turn into a majestic golden eagle. Set in an evil warlock's many-screened castle, you must constantly transform between forms to retrieve the four pieces of a deadly scroll. Huge, impressive graphics and some clever stage design make *Alchemist* an essential play.





B.C. BILL 1984

VARIOUS

There are some interesting mechanics going on here, mainly revolving around you raising a family for 17 years without losing any of them. The best way to do this is to club as many cave women over the head as possible and throw them into your harem so they can produce lots of children for you to feed. We'd like to think this is a terribly clever satirical take on male chauvinism, but as it came out in the Eighties it probably isn't.

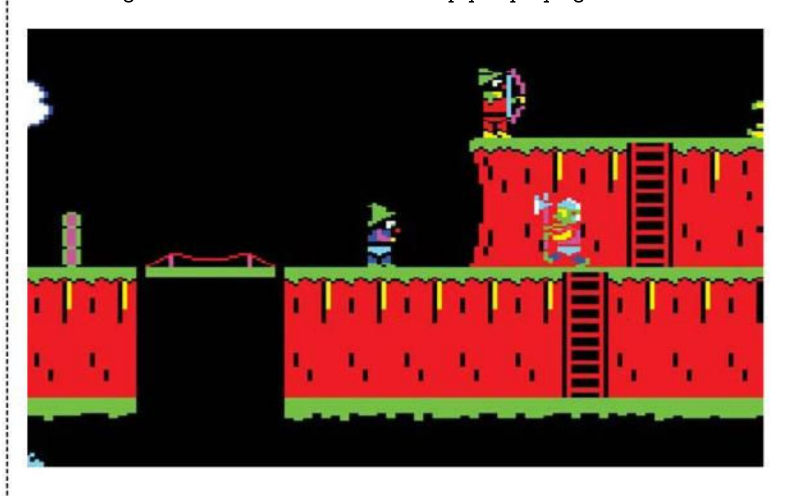




WIZADORE 1985

BBC MICRO

This rather engaging adventure is notable for several reasons. It's the only Imagine game to appear exclusively on the BBC Micro and it was the very first game that Chris "*Wing Commander*" Roberts coded. Heavily influenced by the titles from Ultimate Play The Game, you play a wizard who must travel the gorgeous looking environments in search of scrolls that can be used to attack enemies. While it's difficult, the solid level design and excellent visuals will keep you playing.



PEDRO 1984

VARIOUS

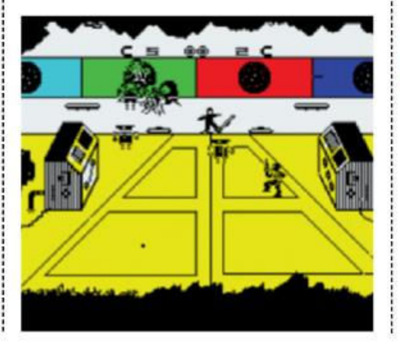


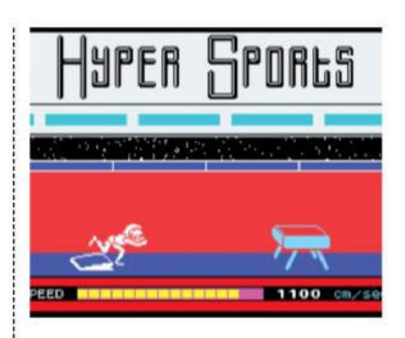
Pedro is a frantic-paced action game where you must protect Pedro's garden from a string of pests by blocking entrances, replanting any plants they eat and simply stamping on them. You also need to keep a wary eye out for a seed-stealing tramp who appears from time to time. It's as fun to play as it is surreal.

COSMIC CRUISER 1984

VARIOUS

Interesting shooter played over two playing areas. One sees you using a canon to shoot down portals, while the other has you entering said portals as a spaceman trying to rescue any imprisoned friends. It's a clever little game that's let down by some clunky controls.

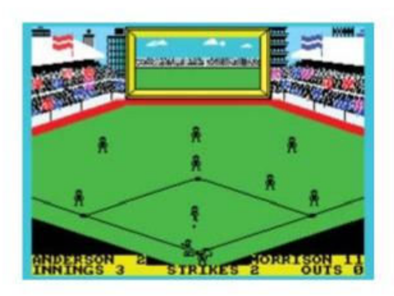




HYPER SPORTS 1985

VARIOUS

One of Imagine's earliest arcade conversions is also one of its very best. It not only has virtually all the events from the arcade game (only pole vault is missing) but also captures all its quirky charm, making it an essential play. Jonathan Smith's coding is incredible, offering gamers an authentic arcade-like experience.





WORLD SERIES BASEBALL 1985

VARIOUS

The stick men might be crude, but this is actually a pretty authentic rendition of America's most baffling sport. There are not many game modes, but the AI is challenging enough while it obviously comes alive when playing with a friend. We particularly like the big screen that shows off pitches and strikes.

WORLD SERIES BASKETBALL 1985

ZX SPECTRUM



Like *World Series Baseball*, this fine effort is also by Platinum Productions. The action is a little sluggish nowadays, but this is a fun early version of basketball that caters for multiple players and has most of the rules from the sport. You can even change the court colour to make sprites easier to see.

"IF WE HAD TO PICK A FAVOURITE IT WOULD BE THE AMSTRAD VERSION"



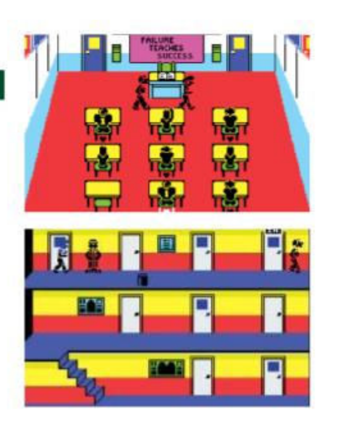
YIE AR KUNG-FU 1985

VARIOUS

This superb adaptation of Konami's innovative one-on-one fighter is one of those rare releases with mainly great conversions across the board. The AI throughout is extremely challenging and fair, while Imagine did an excellent job of capturing the combat system of the arcade original. If we had to pick a favourite it would be the Amstrad version, but they're all great.

MIKIE 1985

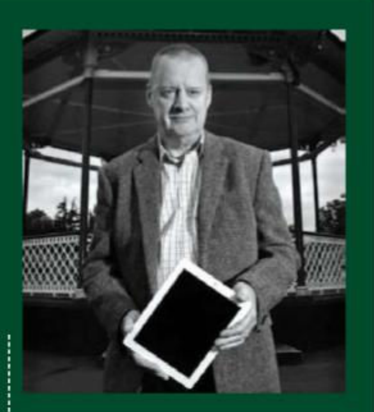
VARIOUS



Pretty much all of the conversions of Konami's 1984 multi-screened arcade game are fantastic fun, but it's the fine Spectrum conversion from the late Jonathan Smith that remains our absolute favourite to this day. It's a complete package, boasting excellent controls, including every single one of the arcade game's stages and even having a cheeky rendition of The Beatle's *A Hard Day's Night* for its title tune.

BRUCE EVERISS INTERVIEW

One of Imagine's key staff looks back



Why did the company gain acclaim so quickly?

In 1982 most videogame companies were run from home on kitchen tables. Imagine was among the first to be a properly run, properly staffed full time organisation. We also marketed very aggressively and in *Arcadia* we had a fantastic first product.

Who came up with its marketing campaigns?

Microdigital in Liverpool was one of the first computer stores, opening in mid 1978. I ran it and did all the marketing, so got to know all the press and what worked and didn't. This hard-earned expertise was transferred to Imagine.

When did you realise it was all starting to go wrong?

During the last quarter of 1983 sales were rocketing. In December we had sales of just under a million pounds for one month, which was phenomenal in those days. Then in the first quarter of 1984 sales just disappeared, as you can hear Sylvia explaining in the *Commercial Breaks* video. Then one day WHSmith sent back a truckload of our games and refused to pay for them, saying they had been returned as faulty. We tested them and they were perfect. Customers had just returned them after copying them. We tried many different tactics to try and reduce the copying, which is where the MegaGames came from. From a business point of view the MegaGames were just an anti-piracy solution.

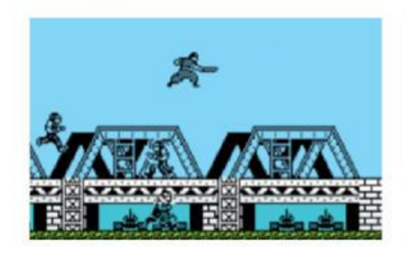
What was the reason for Imagine's downfall?

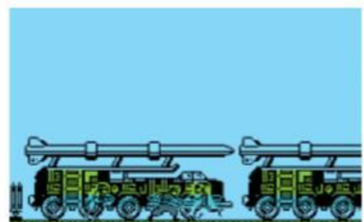
The principle reason was tape-to-tape copying – this just suddenly became the zeitgeist and so there was very little money left in the market to pay the wages of the people who made the games. Imagine was expensive to run with large city centre offices and two lots of prior offices to be paid for, plus a bloated development workforce. Also the flow of games just wasn't sufficient and the quality of those games started to lag behind what people like Ultimate and US Gold were doing.

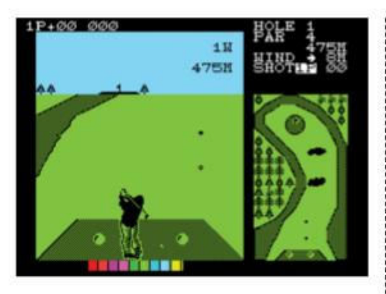
GREEN BERET 1986

VARIOUS

Jonathan Smith created our favourite version (the Spectrum in case you're wondering) but all of Imagine's conversions are decent. It's arguably as hard as the arcade original, with your titular hero running through the stages stabbing as many guys as possible. Pressing up to jump gets annoying, but it's the only real criticism we have.







KONAMI'S GOLF 1986

VARIOUS

There aren't many shots to choose from in this game of golf, but that's to be expected from an arcade conversion. The course design is decent, there's some nice animation on the golfer, while all the conversions are of a good standard. Like *Ping Pong* it's ultimately boosted by a strong two-player mode.

SUPER SOCCER 1986

VARIOUS

There's nothing beautiful about this interpretation of the popular game. The graphics are pretty dire with ugly looking sprites and slow scrolling. The controls are very sluggish, while the gameplay is extremely simplistic, it's buggy too, with the company receiving many returns from unsatisfied customers. Stick with Imagine's arcade-based sports games.



TERRA CRESTA 1986

VARIOUS

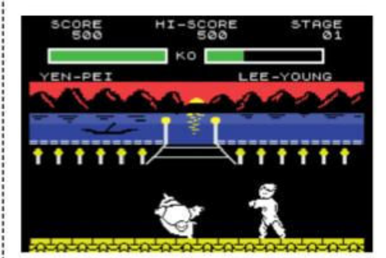
Jonathan Smith delivers another cracking Spectrum port, this time for Nichibutsu's obscure shooter. Starting off as a small craft you must shoot down pods to slowly increase the size and firepower of your ship. The graphics are rather basic but the gameplay is top notch and extremely addictive. Sadly, Imagine's C64 port is less impressive.



YIE AR KUNG-FU 2 1986

VARIOUS

Unlike the arcade original, Konami's sequel started off life on the MSX. It's a pretty dull scrolling fighter and the same can be said for Imagine's various home conversions. They all look nice enough, but suffer from poor controls and some questionable collision detection. They're all as tough as old boots too and not very fun to play.





KONAMI'S TENNIS 1986

VARIOUS

Despite doing a decent port of *Konami's Golf*, Choice Software's tennis game is disappointing. While the graphics are decent, it suffers from iffy controls and incredibly basic gameplay. There's very little depth on offer here, meaning you should stick with Imagine's far more enjoyable *Ping Pong* conversion.





MOVIE 1986

VARIOUS

Excellent isometric adventure where you play a gumshoe called Jack Marlow who must retrieve an audiotape from a dangerous mob boss. While the visuals are truly impressive, it's the clever icon-driven gameplay and stylistic speech bubbles (allowing you to type into them from the keyboard) that help make it so memorable.



PING PONG 1986

VARIOUS

We lost hours to this arcade conversion, again coded by Jonathan Smith. Although there are few moves to learn, it's surprisingly deep, helped by some challenging, but fair AI. The highlight however is the truly excellent two-player mode.

ARKANOID 1987

VARIOUS

Taito's take on *Breakout* receives excellent home ports from Imagine. While not every home system could replicate the arcade's spinner, the game is otherwise arcade perfect, with great visuals and all the power-ups and levels of the original.



ARMY MOVES 1987

VARIOUS



This was one of several Dinamic Software games published under the Imagine label. Split into two parts (a *Silk Worm*-styled blaster and a standard run-and-gun) it certainly looks the business thanks to some astonishing looking visuals. Sadly, it's too hard for its own good, with infuriating bottle necks and unfair level design. It does look amazing, though. Did we mention that?

ATHENA 1987

VARIOUS

This cutesy arcade platformer isn't too well known, but that didn't stop Imagine. Its numerous home ports are all of a high standard, capturing the fast pace of the arcade original and its stylistic visuals. Like *Game Over*, it's mainly remembered for its box art, depicting a buxom lady.

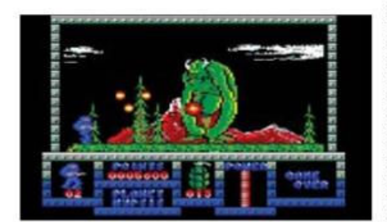


GAME OVER 1987

VARIOUS

More sadistic gaming from Dinamic Software. Every home version of *Game Over* looks incredible, but every version also features insanely difficult stages, overwhelmingly tough enemies and unfair level design that causes you to weep like a child. It's famous nowadays for its risqué cover art, which featured a barely-covered large-breasted woman.





FREDDY HARDEST 1987

VARIOUS

Freddy Hardest is another Imagine-published Dinamic Software game. And it's exactly like the others, meaning it looks as heavenly as an angel spliced with a Power Puff Girl, but is as unforgiving as Clint Eastwood's final rampage in, well, *Unforgiven*. It's two games in one as well, being half run-and-gun and half adventure romp.





RENEGADE 1987

VARIOUS

While the C64 port is pretty bland, the Amstrad and Spectrum conversions of Technos' classic arcade fighter are brilliant. The Spectrum one looks great, with stylistic cartoony visuals, but the gritty Amstrad outing is even better. It even mimics the three-button control system of the arcade original, making for a truly authentic experience.

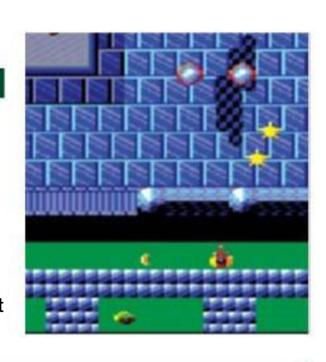


> "A TWO-PLAYER OPTION HELPS MAKE IT THE BEST SCROLLING FIGHTER ON THE SYSTEMS"

SLAP FIGHT 1987

VARIOUS

Taito's innovative arcade shooter received a string of competent ports. While the devs should be commended for recreating the original vertical screen, it comes at the sacrifice of a cramped playing area. The shooting feels nice and solid, but the collision detection feels suspect at times. Enjoyable enough but not one of Imagine's best.



THE COLLECTOR

Mark R Jones on collecting Imagine games

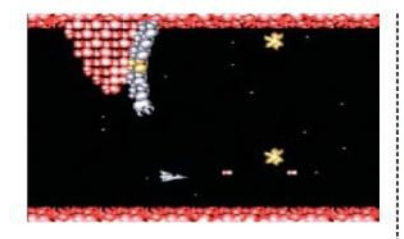




Why collect Imagine's games?
You couldn't possibly have an expansive collection of Spectrum games without having any by Imagine. The titles released by the Liverpool Imagine are noteworthy because they were among the first games to have really great looking artwork. And the later Imagine games I collect because I was working at Ocean when the majority were released. I have had some work published on that label so it's inevitable I should own some titles.

What did you like about Imagine's early games?
The artwork looked great, and most still do. *Alchemist* was the one I played most back when it was new but I think *Jumping Jack* is the best of their games. It might look really simple, but It has that 'one more go' thing.

What impact did the *Commercial Breaks* documentary have on you?
I remember catching the original broadcast by accident. It was the first time I'd seen anything about games on the telly. I'd seen 'Micro Live' and things with Fred Harris in previously but they showed us stuff we never used at home. To see Imagine and Ocean on the TV and learn a bit about how these games were made was fascinating to my 14-year-old self. Little did I know that in three years I'd be walking around those very corridors shown on telly downstairs at 6 Central Street. I could never have 'Imagined' it! Ha!



SALAMANDER 1987

VARIOUS

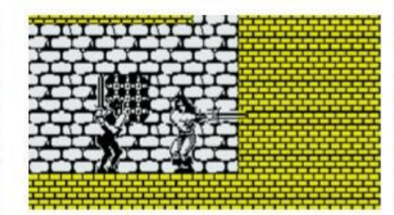
■ While the C64 conversion is a stunning replication of the Konami shooter, the Amstrad and Speccy outings are less impressive. In fact, the Spectrum version is absolutely nothing like the early screenshots that were promised in one prominent magazine of the time, being unrealistic and impossible mock ups.

ARKANOID: REVENGE OF DOH 1988

VARIOUS

■ Taito's sequel receives another cracking port by Imagine. It's not a patch on Elite's wonderful *Batty*, but this is still a cracking take on the *Breakout* formulae thanks to some clever level design, an exotic range of power-ups and highly addictive gameplay. The 16-bit versions use mouse support for added control brilliance.





RASTAN 1988

VARIOUS

■ Taito's popular scrolling hack-and-slash received a number of slick home conversions by numerous developers. Imagine handled the C64, Speccy and Amstrad offerings and while the Speccy and Amstrad versions impress, the C64 outing has ugly visuals and is extremely buggy to play. Special mention must go to Bob Wakelin's stunning cover art.

TARGET: RENEGADE 1988

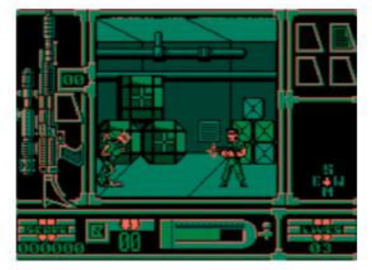
VARIOUS

■ Imagine's sequel to *Renegade* is superb. The Amstrad and Spectrum versions are best due to their excellent visuals, weapon variety and a two-player option, making it the best scrolling fighter on the systems. The C64 and NES versions have superior visuals, but they're let down by being solo experiences.



THE VINDICATOR 1988

VARIOUS



■ Also known as *Green Beret 2*, this is an interesting, if flawed action game. Like many of Ocean's film licences, it's split into several different sections that riff on the shoot-em-up and run-and gun genres. Sadly, the first section is the worst: a painfully dull trek through a bland maze as you attempt to defuse a number of bombs.

DRAGON NINJA 1988

VARIOUS



■ While the 8-bit versions of this scrolling fighter are competent, it's the excellent Atari ST and Amiga offerings that really capture the spirit of the arcade game. They look fantastic, cater for two players and feature all the stages from the arcade game. The only let down is an awkward control system that makes jumping a nightmare.

GUERRILLA WAR 1988

VARIOUS

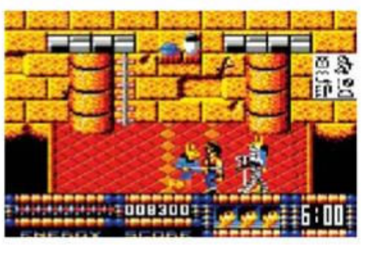
■ SNK's run-and-gun about the adventures of Che Cuevara and Fidel Castro was a poor arcade game, but the ports are even worse. Every version is terrible, with the C64 outing being particularly bad. Ropey collision detection, sluggish movement and ugly visuals make this one of Imagine's weakest ports.



RENEGADE III 1989

VARIOUS

■ Imagine's last *Renegade* game is best forgotten as it's terrible. While the time-travelling theme allows for some interesting level design (punching dinosaurs is fun) it's let down by ropey collision detection, atrocious AI and a set of amazingly bland combat moves. A truly dire game that's so weak it's incredible to think it's from the same developer.





VICTORY ROAD 1989

VARIOUS

■ This sequel to *Ikari Warriors* was never well regarded in arcades, so it's no surprise to learn that the home ports are equally forgettable. Amazingly, the 16-bit offerings are ropier than the 8-bit outings, with hideous visuals and terribly clunky controls that do an awful job of capturing the rotary system used in the arcade game.

AND THE REST…

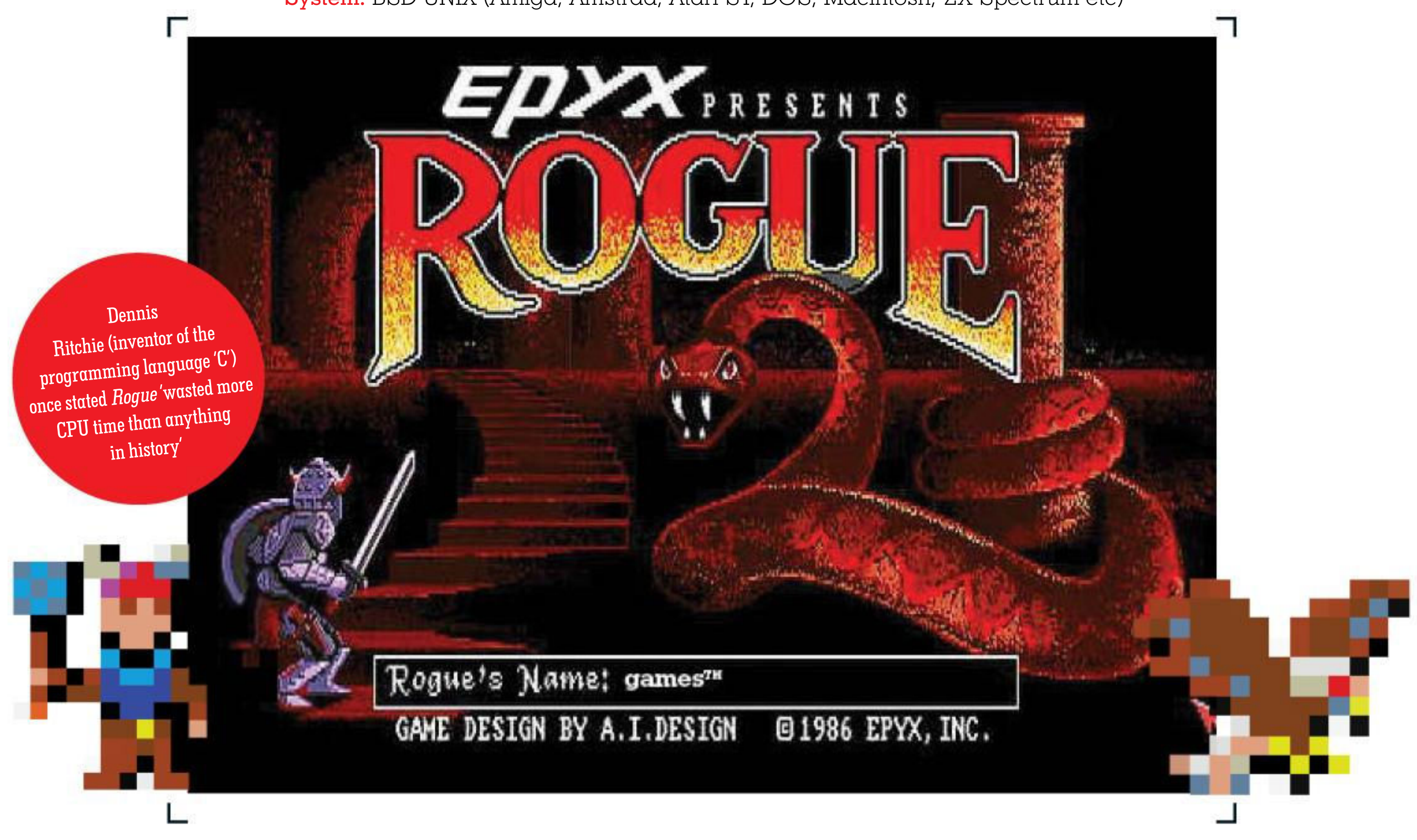
- GALIVAN: COSMO POLICE (1986) VARIOUS
- FERNANDO MARTIN BASKET MASTER (1987) VARIOUS
- LEGEND OF KAGE (1987) VARIOUS
- MAG MAX (1987) VARIOUS
- PSYCHO SOLDIER (1987) VARIOUS
- TYPHOON (1988) VARIOUS
- WEC LE MANS (1988) VARIOUS
- COMIC BAKERY (1988) COMMODORE 64
- PLAY FOR YOUR LIFE (1988) ZX SPECTRUM
- JACKAL (1989) COMMODORE 64



GAME CHANGERS

ROGUE

Released: 1980 **Publisher:** Epyx **Developers:** Michael Toy, Glenn Wichman
System: BSD UNIX (Amiga, Amstrad, Atari ST, DOS, Macintosh, ZX Spectrum etc)



Dennis Ritchie (inventor of the programming language 'C') once stated *Rogue* 'wasted more CPU time than anything in history'

Still actively played, ported and enhanced, Rogue has stood the test of time and has even leant its name to an entire genre. **games™** takes a comprehensive look at one of the most quietly influential games of all time…

ROGUE: EXPLORING THE Dungeons of Doom – to give the game its full name – is one of the precious few games that managed to achieve worldwide fame and recognition, despite originating on the UNIX platform… a base initially designed for science and industry rather than videogame coding. UNIX platforms lacked a dedicated audio/visual interface, and instead featured only character-set graphics, meaning bored programmers could only make games in ASCII or ANSI graphics.

Rogue's creators – Michael Toy and Glenn Wichman – had been involved in videogame development before, but had been limited to creating text-based adventures. Thanks to another programmer's development of a script called 'curses' – which translated the UNIX's character set into rudimentary graphics – the duo began to start applying their knowledge of role-playing games to a more visual medium.

Initially simple, the game the pair made was actually very knowing – the textual graphics related smartly to the function: you played as the '@' symbol because it denoted where you were at, and enemies were represented by 'z' (for zombie). These graphics routines – innovative as they were – weren't *Rogue*'s biggest feature, though. It was the dungeons, generated randomly as the player progressed, that would have the biggest impact.

The other games the pair had been making suffered from limited playability – once you've solved the basic story, what more was left to achieve? This new game still only had one goal, but the branching

THE ANATOMY OF ROGUE

ROGUE IS ONE OF PRECIOUS FEW GAMES THAT'S GIVEN ITS NAME TO A WHOLE GENRE – BUT WHAT GAVE THE GAME ITS SHAPE IN THE FIRST PLACE?



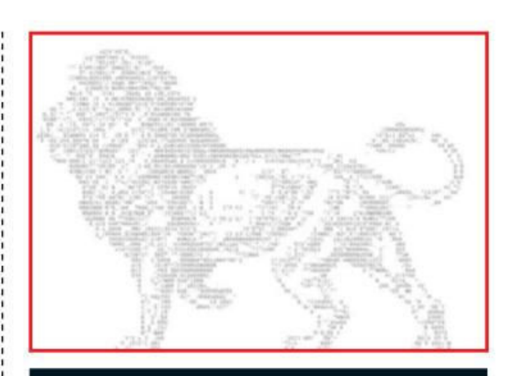
COLOSSAL CAVE ADVENTURE

★ The text game *Colossal Cave Adventure* influenced the idea for the dungeon-crawling aspects of *Rogue* with its maze-like structure that encouraged exploration.



DUNGEONS & DRAGONS

★ The original version of the game had the majority of its lore and monster characters modelled on D&D, but this was changed for legal reasons.



'CURSES'

★ It was Ken Arnold's 'curses' script that let *Rogue*'s developers use text icons to create in-game imagery that would be understandable to casual players.

paths that lead you there (as well as the way you could strengthen your character, collect valuables and defeating increasingly tough enemies) were a game-changer. We take these mechanics for granted now, but before *Rogue*, mechanics like these were rare… and had *never* been seen amidst a randomly-generated setting alongside a satisfying difficulty spike with a adequately-written storyline.

Rogue was challenging, too – because of how unpredictable it was, you'd basically play through a new game every time. You needed to stock yourself up with healing items, and be cautious about the enemies you encountered. Death meant the end of that particular adventure, and the next time you played, everything would be totally different. Games had done this before, certainly – *Beneath Apple Manor* (1978) being the most notable example – but *Rogue*'s unique approach to difficulty and death made it stand out, and ultimately, define the genre.

Rogue didn't achieve mass recognition until it was formally added to the BSD UNIX platform – after Toy's peers at Berkeley's University of California decided to include the game on the machines by default (like *Solitaire* on Windows). At the time, the BSD UNIX was the platform of choice for universities across the world – and as such the game achieved fantastic exposure to fledgling programmers.

YOU NEEDED TO BE CAUTIOUS… DEATH MEANT THE END OF THAT PARTICULAR ADVENTURE

KEY FACTS

■ *Rogue* started a 'purist' movement amid PC gamers – players that defended games without any audio/visual support

■ Due to how developers could program UNIX machines, it wasn't uncommon for players to build 'Rog-O-Matic' software that could autoplay (and beat!) the game

■ The main ruleset for a roguelike game is incredibly strict, and is often referred to as the 'Berlin interpretation'

■■■ Since the code was not commercially available, these junior programmers would go on to re-make *Rogue* themselves, keeping the game alive on various platforms going forward in time. The game – difficult and addictive – achieved a level of notoriety, and this began to feed into the legend of the game. It may not have been the first game to use randomly generated elements within an RPG skin, but it was the first game of the type to really capture gamers' imaginations and attentions.

The game became the undisputed king of the college campus – everyone at University in the US was playing it at one time, according to Wichman himself – and this opened the floodgates for *Rogue*'s commercial success. Toy and another programmer (Jon Lane) ported the game over to the IBM PC in 1984 and enlisted the help of publisher Epyx to sell the game on other formats; including Apple Macintosh, Commodore Amiga, Atari ST and many more by 1988. Each version was ported differently and acquired new enhancements or mechanical variations en-route.

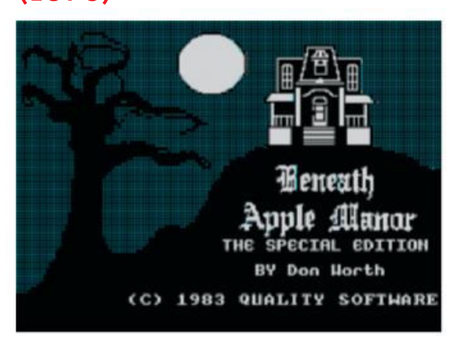
The unfortunate aspect to this origin story is that by the time Epyx got around to marketing and selling *Rogue*, there were already so many free versions of the game on the market, there seemed to be very little consumer interest in purchasing it officially. Between the freeware versions of the game and other developers that had taken advantage of Wichman and Toy's open-source code to make their own variations, *Rogue* failed abysmally on the market. Still, it wasn't all bad news: the game had been so impactful when it was released that many imitators had taken on its mechanics, and even though it wasn't commercially successful, *Rogue* got to live on in the etymology of gaming in a term we still use today.



A CHRONOLOGY OF 12 NOTABLE ROGUELIKES

FROM 'PURE' EXAMPLES THAT HOLD TO THE BERLIN INTERPRETATION TO HYBRID FORMS OF THE GAME THAT DEVIATE FROM THE RULESET, HERE ARE SOME OF THE KEY GAMES IN THE HISTORY OF THE ROGUELIKE GENRE

BENEATH APPLE MANOR (1978)



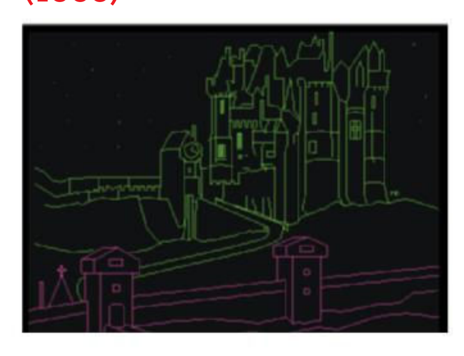
■ ONE OF THE earliest commercial Apple II games, it predates *Rogue* and even came with a primitive graphical display to accompany the text-based version. Its fantasy setting set the standard for randomly-generated games.

TELENGRAD (1982)



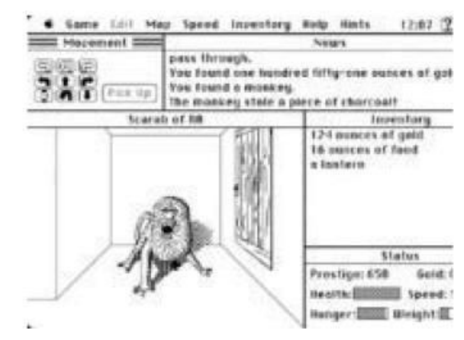
■ HIGHLY REGARDED AS one of the first professionally produced computer role-playing games, *Telengrad* riffed heavily on D&D but did so in a more interactive way. You played in real-time, but it *wasn't* randomly generated.

MORIA (1983)



■ BASED HEAVILY ON Tolkien's *The Lord Of The Rings*, this is the game that's often cited to have influenced Blizzard's *Diablo* series. It gets its name from its main quest: kill the Balrog deep in the mines of Moria. It's simple, but certainly effective.

SCARAB OF RA (1988)



■ A FIRST-PERSON PERSPECTIVE played a bit like a point-and-click, this game was a turn-based roguelike that introduced a more adventure game setting to the genre. It was released for Macintosh and can still be played on Mac OS today!

TOEJAM & EARL (1991)



■ MORE 'ROGUE-LITE' THAN roguelike, this 2D, top-down game was made of randomly-generated floors that contained random items and – key to the genre – punishing permadeath. Its off-beat humour and art style were highlights.

UNREAL WORLD (1992)



■ A GRAPHICAL ROGUELIKE adventure set in the far north during the late Iron Age. Interestingly, it was more concerned with survival elements than active exploration, and did a great job of showing you the ancient wilderness.

TORNEKO NO DAIBOKEN: FUSHIGI NO DUNGEON (1993)



■ THE FIRST GAME of the now-famous *Mystery Dungeon* series, this roguelike features Taloon – the merchant from developer Chunsoft's other flagship series, *Dragon Warrior*. The game spawned sequels in Japan and the West.

CHOCOBO'S MYSTERY DUNGEON (1997)



■ SQUARESOFT WANTED TO cash in on the roguelike craze by the late Nineties, and so began to transport its own iconic characters into the genre, resulting in everyone's favourite big yellow birdthings exploring dungeons for loot.

DARK CLOUD (2000)



■ THE DUNGEONS IN the game were powered and generated with a roguelike engine, but the game's 'purity' is often called into question thanks to the city-building portions of the game. Even so, the level design and exploration are pure.

POKÉMON MYSTERY DUNGEON: RED/BLUE RESCUE TEAM (2005)



■ A PAIR OF games released using the very pure dungeon-crawling of Chunsoft's *Mystery Dungeon* franchise, but laced with that distinctive Pokémon aesthetic – arguably introducing the genre to younger players. Its story wasn't bad, either.

FTL: FASTER THAN LIGHT (2012)



■ A 2D REAL-TIME strategy where you're tasked with moving from system to system whilst avoiding a trailing horde of enemies. You can put hundreds of hours into the game and still come nowhere close to completion, frustrating but a lot of fun.

THE BINDING OF ISAAC: REBIRTH (2012)

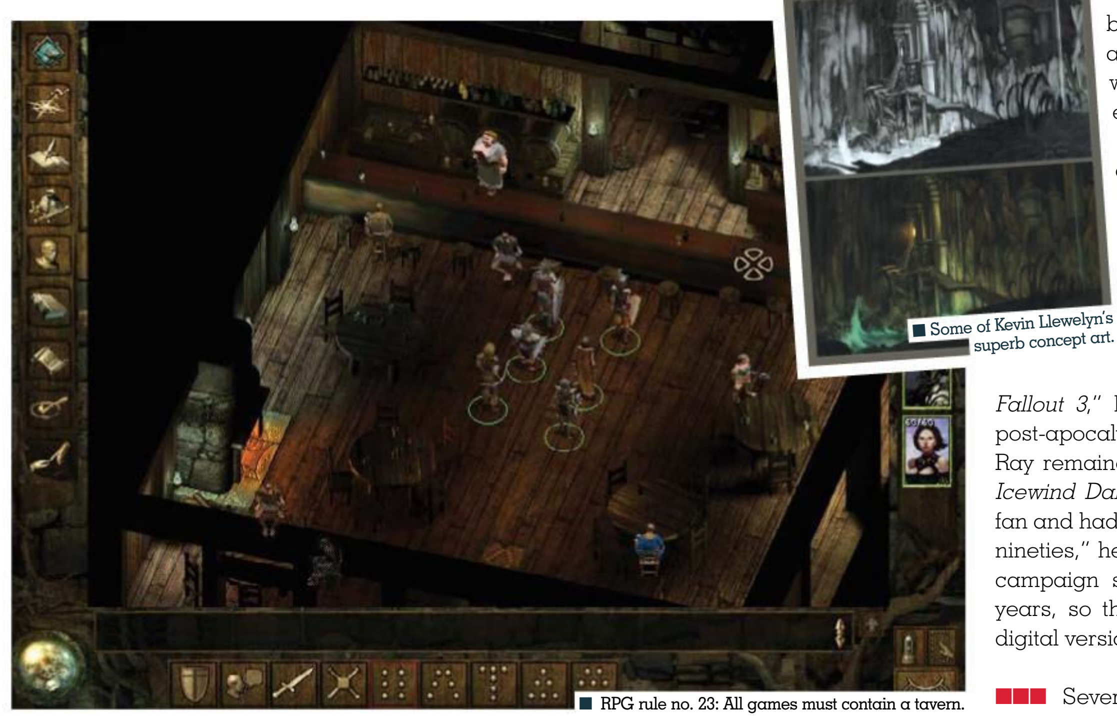


■ INSPIRED BY *THE Legend Of Zelda*, but with a very dark and surrealist twist, this game is known for its challenge – a lack of save points and some *very* punishing generation paths made it stand out from the crowd.

BEHIND THE SCENES

ICEWIND DALE

There's a place… the spine of the world. Cold, desolate and unforgiving, it is the setting for a tale of epic deeds and tragic history. games™ shall tell you of such a tale – welcome, weary traveller, to the legend of Icewind Dale…



■ RPG rule no. 23: All games must contain a tavern.

■ Some of Kevin Llewelyn's superb concept art.

Released: 2000
Format: PC and Mac
Publisher: Interplay
Key Staff: Josh Sawyer, Matt Norton, Stephen Bokkes, Scott Warner (design), David Ray, Jacob Devore, Thomas French, Richard Finegan (coding) Chris Avellone (script, manual & technical design), Jeremy Soule (music), Chris Parker (producer), Kevin Llewellyn and others (art)

THE STORY OF *Icewind Dale* begins in way back in the year 1998, two years before it appeared on the shelves of your valiant local games shop. Released to critical acclaim and massive sales figures, *Baldur's Gate* turned the RPG genre on its head, its five discs encompassing an expansive and involving story, spattered with swords and sorcery action and an advanced engine called Infinity running the show beneath its vibrant world. The success of *Baldur's Gate* meant a sequel was inevitable, yet with a workable and adaptable engine in place, it was clear further games in the Forgotten Realms could prove popular.

However, first came *Planescape Torment*. A superb mix of macabre RPG, the Infinity engine and a heavily-altered version of the *Advanced Dungeons & Dragons* second edition ruleset, the game was a hit with critics, but not so with gamers. Lead designer on Planescape was Chris Avellone. "Planescape at that point had largely broken me and my health," he grimaces. "Although it didn't help, I was working on *Fallout 2* at the same time." Fortunately, Interplay's vice president, Trish Wright, instructed Avellone to take it easy and stop working so late. "I was grateful that she was compassionate enough to swing by," notes Avellone. Soon he would be lending his talents to miscellaneous areas within *Icewind Dale*, a project that would prove to be a relatively calmer experience for the young designer.

The nature of *Icewind Dale*'s development meant that, for once, the technical side remained an easier ride for those involved, as opposed to design. Working at parent company Interplay was coder David Ray.

"I'd been in the VR Sports department, working on *Interplay Baseball 2000* when I was moved over to Black Isle and *Fallout 3*," he remembers. When the sequel in the post-apocalyptic franchise was ultimately cancelled, Ray remained at Black Isle and was put to work on *Icewind Dale* instead. "I was a huge R.A. Salvatore fan and had read the *Icewind Trilogy* back in the early nineties," he continues. "I'd also been GMing a D&D campaign set in the Forgotten Realms for several years, so the idea of being involved in making the digital version made me kind of giddy."

Several ideas had been brainstormed prior to Black Isle settling on the backdrop of the realm's harshest region.

"I'd worked on a number of projects at Interplay in a limited capacity," says Avellone, "and a variety of cancelled and shelved Forgotten Realms titles – of which there were many and in some of the weirdest parts of the Realms too." Another designer on *Icewind* was Stephen Bokkes and he recalls how the initial concept came about.

A NUMBER OF US WERE AVID D&D FANS, SO ANOTHER FORGOTTEN REALMS CAMPAIGN SEEMED LIKE PERFECT SENSE

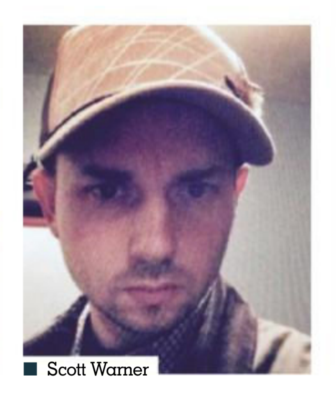
"At the time, Black Isle Studios was close to wrapping up *Planescape: Torment*. Our next project was *Fallout 3*, but it was decided that we had the budget and resources for an interim project of smaller scope and scale that would allow us to transition team members between projects more effectively." Given the long-standing relationship with Wizards Of The Coast, it made sense to utilise another of its properties. "A number of us were avid D&D fans, so another Forgotten Realms campaign seemed like perfect sense," continues Bokkes. "After a few days, sleepless nights and preliminary concept work, the Dragon Spear project was born."

The original title for the project was Dragonspear Castle, its name derived from an obscure location within the Forgotten Realms. "We were told to expect a small team and a short development cycle of less than twelve months," Bokkes explains, "and as such,

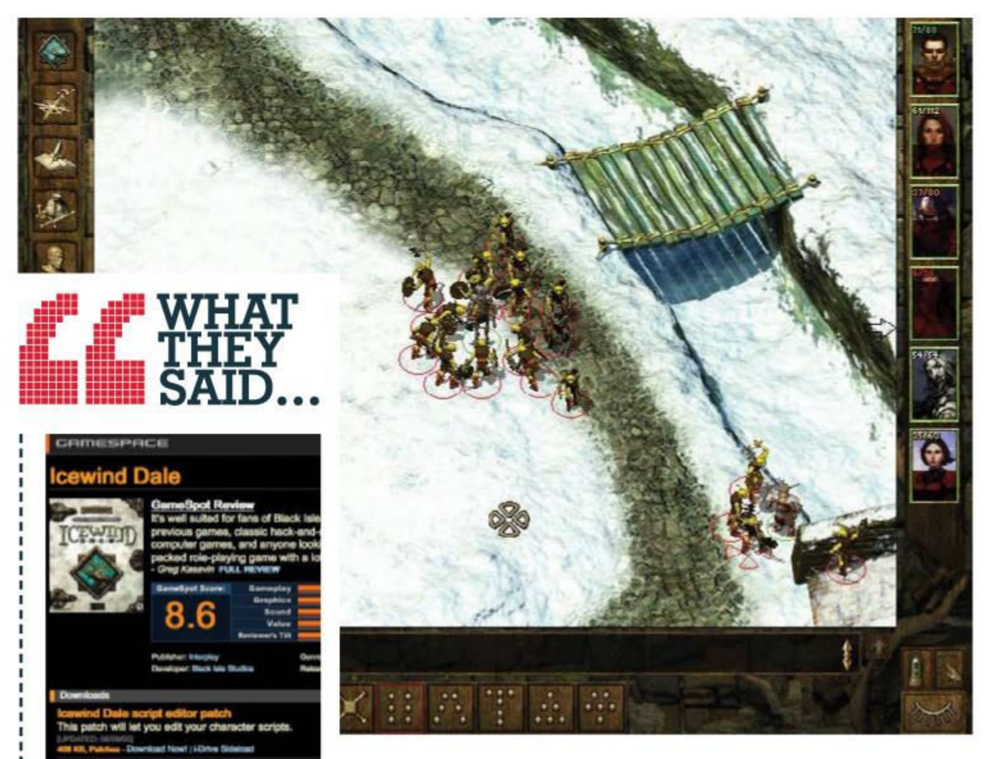
■ Chris Avellone



■ David Ray



■ Scott Warner



WHAT THEY SAID...

Ultimately, its story makes Icewind Dale all the more satisfying and its exciting action makes its occasional problems negligible. There's always a purpose behind all the hacking and slashing, which makes the gameplay seem rewarding and challenging, rather than like a cheap thrill

Gamespot, 2000

the initial game concept was pretty much a straightforward dungeon crawler, heavy on combat encounters and light on story and dialogue." Yet while this concept changed little during development, many of its team felt the scope of the game was too narrow and the setting too little known.

Bokkes continues, "After a bit of hair-pulling, arguing and convincing – [in other words,] collaboration – between us, the management and Wizards Of The Coast, we agreed to revisit the concept. I came up with a list of settings and locations that I considered more interesting and worthy of an adventure of the Forgotten Realms. The Moonshae Isles and Icewind Dale were the team's top two choices on the list, and being an unapologetic fanboy of Salvatore's novels, I rejoiced when we ultimately went with Icewind Dale."

For those not familiar with the Forgotten Realms, *Icewind Dale* takes place in Faerun, a continent to the north of a world called Abeir-Toril, or Toril. Known also as the Barbaric North or the Savage Frontier, Icewind Dale contains numerous large caverns of former dwarfish strongholds and ruins of long-dead cultures, separated from the rest of Faerun by a wall of jagged peaks known as the Spine of the World. Peppered by a steady stream of brave souls looking to explore, or simply those wishing to escape the rigid laws and taxes of the temperate southern lands, it is a place where nature rules, in the form of huge mountains and elongated lengths of alpine forests. Yet settlements exist despite the desolateness; linking the towns of Easthaven and Kuldahar is Kuldahar Pass, the main route throughout the north, and *Icewind Dale*'s tale takes place here, and on the plains of the Dale itself.

Centuries ago, barbarian tribes such as the Uthgardt and Reghedmen lived on Icewind's expanses and forged a difficult yet independent existence. When an archmage known as Arakon arrived, complete with a mercenary army and intent on conquering the northern wastes, a fierce battle ensued that initially favoured the wizard's forces. However, the tide turned decisively when the barbarian tribes, united by a shaman known as Jerrod, drove back the mercenaries, forcing Arakon into one last desperate act.

As the barbarian army surrounded the archmage, he summoned all of his power and tore open the planar boundaries, opening up a portal to the lower planes. Materialising from this conduit came forth a horde of hideous demons, intent on slaying any creature they set their devilish eyes upon. Struck by a vision from his God, Tempus, Jerrod forced his way through the demons and into the portal itself – his blood combining with its energy to fuse the gateway shut. However, as the introduction to *Icewind Dale* portentously states, this is not the end of the story, but merely the beginning.

To this backdrop enters a party of warriors, created completely by the player. Each character can be designed from race to colour, class, alignment and skills. "The idea of building every single party member was new," remembers Avellone, "and while it bogged down the opening of the game, it was still fun to build everyone from scratch. I enjoyed it, anyway!"

MUCH OF THE GAME WAS NOT MOTIVATED BY WHAT WAS ESSENTIAL, BUT MORE BY WHAT WE COULD DO WITH THE TIME AND RESOURCES

The initial storyline was put together by Bokkes and Josh Sawyer, who also generated the game's preproduction design documentation. As production began in earnest, Bokkes focused primarily on the design of the major quest hubs (Easthaven and Kuldahar) and the level design for several encounter areas. Despite using an existing



■ Expansion *Heart Of Winter* was even tougher.

engine, *Icewind Dale*'s purpose restricted what could be achieved in terms of design.

Avellone recalls that, "Much of the game was not motivated by what was essential, but more by what we could do with the time (not much of it) and resources (much less than *Baldur's Gate* in terms of personnel and budget) and yet still feel compelling. *Icewind Dale* was designed to get product out fast and keep Interplay afloat during difficult times."

David Ray was the lead programmer and responsible for the adaptations to the infinity engine. "We were using what we called Baldur's Gate 1.5," he reveals. "It was the latest engine and had many of *Baldur's Gate II*'s features, but not all of them. A lot of our engineering time was spent working out the kinks in the new features and massaging them to work without complications. One of the notable things we did was in the rendering engine. They had implemented OpenGL to support faster rendering when you had a 3D card, but we wanted to support some of the new features without requiring a 3D graphics card."

3D cards were fast becoming commonplace but were still expensive. Icewind Dale's separate software renderer ensured everybody could experience the game's new magical spell effects.

Other additions and amendments were plentiful, if minor. As Ray explains, "We created a few new animation sequences that weren't in *Baldur's Gate* and many of the spells required updated code paths, but it was mostly the same engine, we just added a few whistles and bells." By creating the type of game that the Infinity engine was essentially designed for and coupled with Black Isle's experience on *Planescape: Torment* the project moved forwards smoothly from this point of view, save the odd ambitious design element that the system could not handle. "I'm a huge dragon nerd," smiles Ray, "and there was a lot of talk about putting this huge dragon in the game. But I was the one that killed the idea because I felt like we couldn't do it justice with the technical limitations and time constraints. I was a little sad about it, but I still feel it was the right decision to make at the time." A collection of screen-enveloping dragons would eventually appear in both *Baldur's Gate II* and *Icewind Dale II*.

Design proved even more troublesome, with enthusiastic ideas often drowned out by the restrictions of the Infinity engine.

"Most of the issues were over time," says Avellone, "and we had arguments about aspects of the style guide. Even though it was a dungeon crawler, I didn't have much tolerance for goofiness in the game, which chafed a bit, especially if it got in the way of an otherwise well-scripted dramatic moment. We kind of gave up on this stance as it vanished during the chaos of *Icewind Dale II*, where it did get kind of goofy." Another aspect Avellone regrets is that a time-saving tokenised system was only employed later on. "It meant the game could read the spell and item data files associated with the spell [or] item and automatically assign the designer-set properties such as duration, damage and class usage," he explains. "It would then import it into the outward-facing text descriptions. [This] made it so much easier, eliminating the need to enter and finalise data by hand and helping reduce bugs."

MUMMY ISSUES

Chris Avellone explains how one small change caused the whole team several big headaches

"SO: MUMMIES. ANY *Dungeons and Dragons* player worth half a copper piece knows that mummies cause disease, right? Well, we didn't have disease in *Icewind Dale*. At the start. Then someone mentioned it and it got included. And disease is like a poison, right? And it's easy to add. It was. And the next day, it started murdering all the testers' characters, like a slow-moving power word: kill. Do you know why? Because no-one realised that we needed a *cure* for disease. One hit, one failed save roll and the unfortunate character would see its life force slowly sapped away. Realistic? Maybe. Fun? No.

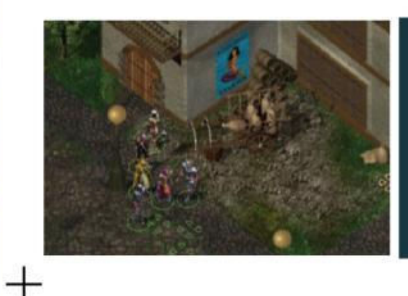
"You wanted to kill your avatar yourself, because it was too painfully unheroic to watch. So a cure was added in the spell 'cure disease' (obviously). That's easy too, right? I mean you add some new spells, but uh-oh, wait... you have to make sure the paladins can do it too. And what if you don't have anyone in your party that can cast 'cure disease'? We needed some items that could do the same thing and not just priest scrolls, but potions, charms and so on.

"We had to make sure they were easily obtainable and then we needed to add it to the priest interfaces in towns as well, just in case…and on it went, and that is the mummy's tale, how one seemingly simple, easy addition caused a shitload of work to balance it. I encourage any budding designer to heed this, because even the smallest additions to a game is like introducing a new insect into a fragile new ecology. The insect may turn out to be ill-suited and die. It may thrive. It may also be a vicious predator that devours the entire new ecology around it. And then, to add insult to injury, the little pest may turn into the worst of pests, it may turn into a mummy."

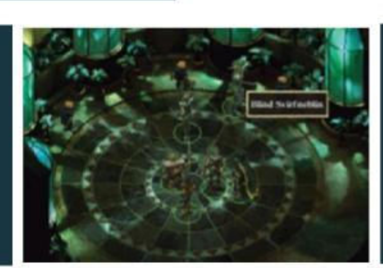


Some of the *Icewind Dale* team. From back left: Stephen Bokkes, Josh Sawyer, Scott Warner, Chris Avellone, John Deiley, Reg Arnedo.

> A GAMING EVOLUTION Baldur's Gate > Icewind Dale > Baldur's Gate 2



Baldur's Gate set the standard and unleashed the isometric infinity engine upon the world. *Icewind Dale* simplified the gameplay.



This was a stepping stone to *Baldur's Gate 2*, which contained grander effects, characters and a very in-depth plot.



Avellone also contributed a number of elements to several major characters, he helped compose the narrative style guide, tweaked dialogue and proofed script implementation and checklists.

"I had about a 30-row long checklist table for every dialogue in the game to run through for fixes," he recalls, "and although that may sound boring, I love that stuff when I'm not writing – or not in the mood to write [anyway]. I also wrote the manual, which everyone should do for a game at least once because doing that during the last months of a game is a hellish obstacle course of tracking spell and item information to make sure everything is correct. And a lot of systems can change and be rebalanced during that timeframe."

Upon release, *Icewind Dale* was not without its critics. Many decried its simplicity after the plot-heavy and character-focused *Baldur's Gate*, others highlighted some of the technical deficiencies of the infinity engine, such as its sometimes dubious pathfinding, that had irritatingly re-appeared from its forebear. The development team, perhaps sensing that *Icewind Dale* lacked depth, made the game extremely tough, another fact that was noted at the time. There's no doubt that charging full-on into many of the tricky battles would soon see several darkened portraits. Sneaking a thief forward and drawing out enemies one by one was a tactic many players picked up on, but this was not one anticipated by the development team.

"I personally liked emergent behaviour in games," declares David Ray, "and I can appreciate it when players can do things that the developers didn't think of. I don't recall if any of us thought of that specifically, but I'm kind of glad it worked."

Avellone notes of this method, "It may not be realistic, but [such] challenges that force you to re-examine 'charge!' strategies really make a designer's day. One of the most fun aspects of the *Icewind Dale* series was layering new ways of undermining these challenges. For example, once it became clear that a number of testers and players were using animal and elemental summon mobs to be their front line tanks, it wasn't hard adjusting the key spellcasters and enemy mages so they would dispel first and ask questions later."

Despite the criticisms, *Icewind Dale* scored well and proved there was a market hungry for its wide breadth of free-roaming adventuring. The game even survived a similar release date to another highly-anticipated RPG in *Diablo II*, with some remarking that maybe this assisted sales in a perverse way, with many gamers eagerly picking up both titles.

TO INFINITY… AND BEYOND!

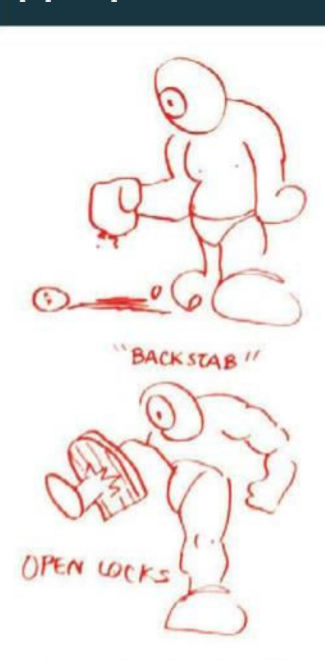
All about BioWare's popular game engine

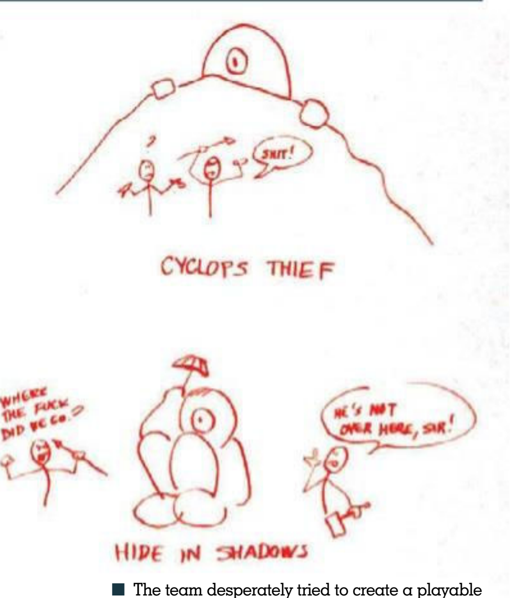
THE INFINITY ENGINE was created at BioWare with the intention of developing isometric role-playing games, initially the game *Battleground Infinity*, which eventually morphed into *Baldur's Gate.*

For gameplay, it used real-time movement combined with semi-real-time combat – the action could be paused at any time for the player to take stock and order their characters. Graphically, the isometric viewpoint used pre-rendered 2D backgrounds with sprite characters and permitted intricate detail on both.



After *Baldur's Gate*, an updated version (1.5 as the team called it) was used for *Icewind Dale* with refinements and additions included for *Baldur's Gate* sequel, *Shadow Of Amn*. However, with 3D graphics cards gaining increased popularity in the late 90s and early 00s, the engine soon began to look dated and it was succeeded by BioWare's Aurora Engine. This proved the basis for many future games to come, although its first iteration, *Neverwinter Nights*, received some very mixed reviews.





■ The team desperately tried to create a playable cyclops race. Sadly it never even made it to the sequel.

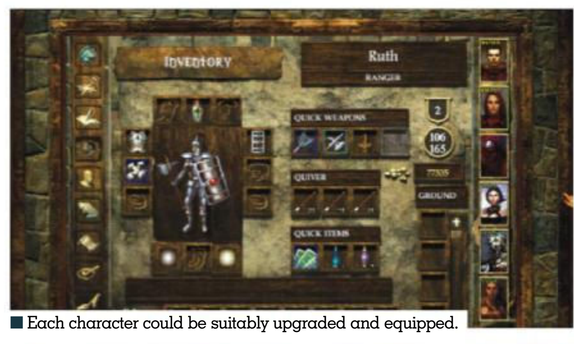




Icewind Dale isn't an earth-shatteringly original game, but the overall package is so skilfully crafted that this doesn't matter one iota. Role-players have never had it so good

Eurogamer, 2000

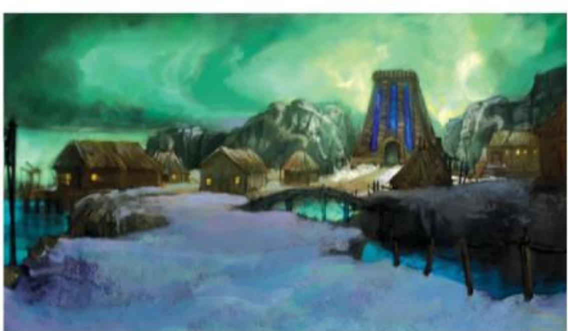


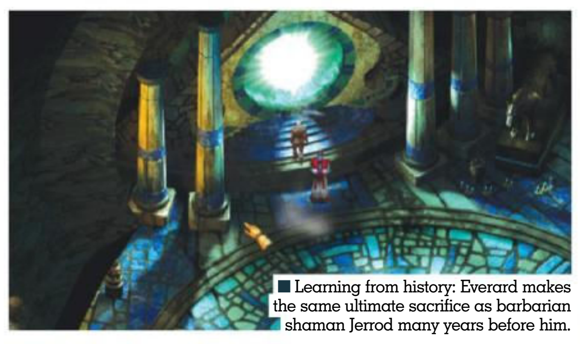


■ Each character could be suitably upgraded and equipped.



■ Several NPCs, such as Arundel, help the player discover the scourge of the dale.





■ Learning from history: Everard makes the same ultimate sacrifice as barbarian shaman Jerrod many years before him.

"*Diablo II* was gonna slaughter us in the action RPG arena," says Avellone, "and it was almost something you expected, not dreaded." Nevertheless, the game sold credibly, assisted by the public's familiarity with its gameplay style and engine. In all, there is little that those involved would change about *Icewind Dale* itself.

"It was what it was," says Avellone, "and for that, it was pretty well sized and scoped, except for the system changes. I probably would have left some of those alone in hindsight, so the programmers weren't on the verge of divorce from the long hours."

David Ray cites the user interface as something that could have been modernised. "Updating the UI was something we had wanted to do while we were working on it," he recalls, "but we did a cost/benefit on it and decided it was something we couldn't fit into the schedule." For the development team, *Icewind Dale* represents a variable point in their careers. Avellone laments the role the game played as a bridge to other projects, when perhaps making a start on further *Baldur's Gate* games, or even *Fallout: Van Buren* may have seen those franchises flourish at Interplay.

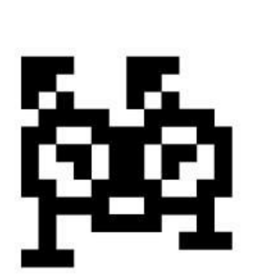
EVEN THOUGH IT WAS A DUNGEON CRAWLER, I DIDN'T HAVE MUCH TOLERANCE FOR GOOFINESS IN THE ICEWIND DALE

"We had tons of fun with it, but honestly it wasn't a ground-breaking game – just fun. But lest I sound like Debbie Downer, fun's the thing and not every game has to set out to change the world. Players enjoyed it, we had fun making it and that's what counts," Avellone remembers fondly.

For programmer David Ray, having been cornered into developing sports games, working on *Icewind Dale* was a breath of (icy) fresh air and sparked a career of development on similar titles, including the phenomenally successful *World Of Warcraft*.

Interplay followed *Icewind Dale* with the expansion *Heart Of Winter* which was, incredibly, even tougher than the original game, if a little on the brief side. After another (free) expansion entitled *Trials Of The Luremaster*, a proper sequel was released in 2002. Essentially more of the same, it sold steadily, but not enough to save Black Isle Studios, before publisher Interplay itself became quite the story over the remainder of the decade. But that, brave adventurer, is a tale for another time.

■ The mission takes the party to Dragon's Eye, a mountain infested by human-hating lizard creatures.







RETRO

INTERVIEW

JAS AUSTIN

From an Easter-themed BASIC game to the iOS version of a classic strategy game, Jas Austin has seen it all, and more. **games™** caught up with the industry veteran at his home in sunny Portsmouth

SELECT GAMEOGRAPHY



Rex (1988)
Programmer



R-Type (1991)
Programmer



Constantine (2005)
Programmer

What was the first game you played?
I was friends with Mel Croucher and Christian Penfold [Automata] as they were based near me. I saw an advert for their games and thought they looked fun, so went and knocked on their door and asked if I could buy a game, *Can Of Worms*. They said no, because I was too young as it was an 18 game. I was a bit upset, so Mel said 'Come back with your mum and if she says it's alright you can have it'. So I went back with my Mum and she said it was fine. It wasn't even that bad, although in one of the games you had to pee into a urinal, almost like an early version of *Angry Birds*. Lots of silly games which I played to death on my ZX81.

What was it that got you into games?
It started in the arcades. I used to spend my summer holidays in Portsmouth and my family would dump me at the arcades with a bag full of change. I liked games such as *Donkey Kong* and *Jump Bug* but shooters such as *Scramble* were my favourites – I think I preferred blowing shit up! Then my school had a Sinclair ZX80 and it was wondrous, even though looking back it was a terrible machine. With the ZX81 I started getting interested in games. I hated my paper round, so I saved up until I had enough to buy one, then told the newsagent to stuff their job. I never released anything on it, but I learnt BASIC and small bits of machine code, all self-taught, so that's where my love of programming began.

How did you end up getting involved with Mel Croucher and Christian Penfold's software house Automata?
They were local heroes – they ran a games company and also a computer club which I attended. One Easter, Mel decided to have a competition and asked anyone to submit Easter-themed games. I think I was one of only two who entered and we both won! My game, *Bunny*, was terrible but they released it and I got £25 for it. Well, actually I didn't, because I told Mel what I wanted was some memory for my 16k Spectrum. I found out later he was able to get that sort of stuff really cheap, but I didn't care as it got me my foot in the door. I was still a kid.

> **I CODED PI-BALLED WHICH MAY – AHEM – HAVE SLIGHTLY RIPPED OFF Q-BERT. AN HOMAGE. THAT'S IT. AN HOMAGE**

What came next?
With my newly-upgraded Spectrum I wanted to write something bigger and better, so learned



DEVELOPER HIGHLIGHTS

"JAS WAS BY far the best bespectacled underage undersized over-talented entry we received when we thought it would be fun to give kids a chance to get ripped off and find fame. He still blames me for leading him astray into a lifetime of games creation, and he also claims I owe him almost a quid in unpaid royalties. I gained three lifetime friendships from the programmers I admired back them, and Jas Austin is one of them. In fact, he was one of the last men standing at my 60th birthday extravaganza a few years back."

Mel Croucher



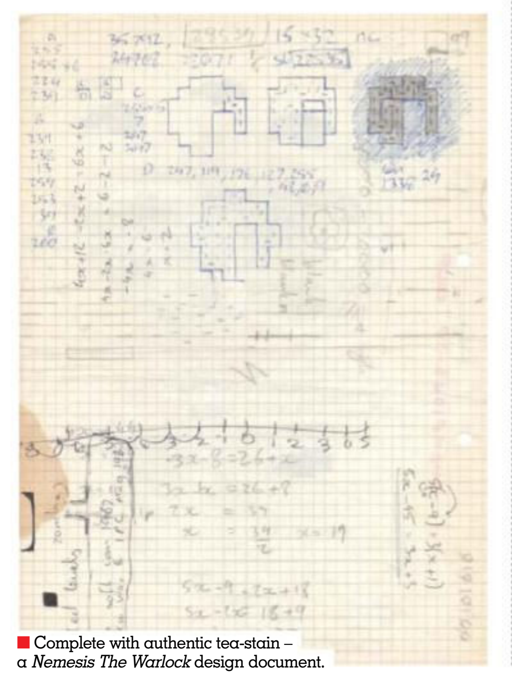
■ Creative Reality circa 1988: Neil Dodwell, Dave Dew and Jas Austin, complete with an impressive mullet.

DEVELOPER HIGHLIGHTS

> I WAS ACTUALLY only 18 when I started working with Jas, and he'd already written a load of stuff. I remember thinking 'Shit, this guy knows what he's doing – I've got a load of catching up to do and a lot to learn!'
>
> **Neil Dodwell**

machine code for my next game, *Pi-Balled* and started working with Colin Tuck who wrote the other competition game. I coded *Pi-Balled* which may – ahem – have slightly ripped off *Q-bert*. An homage. That's it. An homage. We got £250 each plus royalties – I really felt like I'd hit the big time!

We also did *Pi-In-Ere*, which was another arcade rip-off, a sort-of mashup of *Mr. Do!*, *Dig Dug* and *Boulderdash*. Both our skillsets had gone up dramatically, it had over 40 levels, loads more graphics and it was hand-built and designed. The whole story was that you were the bird character from *Pi-Balled* and were transported inside the computer. So there was a 'Pi-In-Ere'. Nowadays we spend weeks naming a game. Back then we just went down the pub and picked something that sounded cool. Unfortunately Automata were struggling by then as they couldn't get their games into the high street and mail order was dying. It was a bit disappointing but it wasn't their fault, they publicised the game as much as they could. Mel always seemed like a genuine guy and not the sort to rip you off.



■ Complete with authentic tea-stain – a *Nemesis The Warlock* design document.

Pi-In-Ere was your final game for Automata. What happened next?

I'd realised that I really enjoyed writing games and wanted to make career of it. I had a chance meeting with a guy called David Wainwright who had set up a games company. I showed them this game I'd been working on called *Colourscape*, which was this crazy thing I'd written based on John Conway's life formula. It had a life grid and guns in the corners which you fired to create cells in the middle to try and keep alive. It was very abstract, but beautiful, and unsurprisingly he said no. But he offered me a job. I met an artist called Dave Dew and our first game was a licence of *Tarzan* for Martech.

We watched a bunch of Tarzan movies and did a side-view game with a nicely-animated character. It wasn't a great game and took a long time, but it was my first major release. In my spare time I'd also been working on a downward-scrolling shoot-'em-up called *Tac*, which Catalyst found out about. They changed the name to *War* and it was the Spectrum conversion of a Commodore 64 game, which was originally a horizontal-scroller.

But they were my only games for them as they were in financial difficulties. So Dave, myself and another Catalyst coder, Neil Dodwell, started our own company, Creative Reality. Luckily we got on well with David Martin [Martech boss], so he took us on as a development house.

Your first game for Martech was another licensed release.

We were huge *2000AD* fans, and my favourite strip was *Nemesis The Warlock*, so that was thrilling. There was an initial meeting where I gave my thoughts on the game's design and that was it. We picked a few things from the comic to feature such as the spitting acid, sword and gun. I always get asked about the piling up the bodies thing too. That idea must have come from the comic, we were just plucking ideas out and hoping they'd all stick together. It wasn't a Crash Smash, but I was quite pleased with it, and then there was *Slaine*…

We were trying to something new, and I'd been playing a lot of text adventures, so was thinking about combining them to make something different. We called it Reflex and were hoping to make a big thing out of it, like it was some incredible new technology. The theory was that Slaine is a berserker and it was trying to simulate his fevered mind with all these random actions drifting around, but it was too frustrating. You couldn't even do simple things easily – if you wanted to 'go west' you had to wait for it to appear. It looked nice, Dave's graphics were top-notch, but I'd be the first to admit it didn't really work as a game. It had some unusual ideas and I'm still proud because it's talked about today, even if for the wrong reasons!

Slaine and follow-up game, _The Fury_, weren't great sellers. Did you fear you'd get dropped?

We did a demo after Dave created this cool character with a *Defender*-esque laser weapon. It gave us one more game, *Rex*, but they ended our contract after that. Martech were on a downward slide and Dave, Neil and I went our separate ways too. Fortunately, my agent was friends with BITS founder Foo Katan and got me an interview. That was odd. I turned up at this little office above an electrical shop and there were a couple of other bleary-eyed programmers. Foo asked me if I thought I could convert the arcade game *R-Type* to the Game Boy. I had absolutely no clue how to, but said 'Of course I can'! BITS needed a demo in two weeks, and I left their office with a demo kit.



■ The ambitious, yet baffling *Slaine*.

■ The unreleased *Fido Dido* cartridge.

■ Despite being a Game Boy coding novice, Austin produced an excellent conversion of the classic arcade game *R-Type*.

You ended up creating a few film licences for BITS, but got into a bit of a pickle with the Game Boy version of *Terminator 2*…
Any face shots for Arnie had to go through his lawyer, hence only seeing the back of his head on close-ups. But the biggest problem with the film company was with Linda Hamilton's character. They kept sending back the comment that her 'bangs' were too small. We thought this meant breasts, so they kept saying it, and we kept making the breasts bigger and bigger. Only after a few conversations we found out that bangs are American slang for fringe…

So then you did some SNES development at BITS?
I did a game called *Fido Dido,* which was unreleased, and an *Itchy And Scratchy* game from *The Simpsons,* which was a bit of a problem project; I think I was the fifth coder to work on it. Matt Groening was difficult to work with on the visual side and a lot of stuff went backwards and forwards. *Fido Dido* was a French cartoon that we only knew in the UK as the character from 7 Up. The publisher got bought out and stopped doing games – that was a shame as it had some nice ideas such as a yoyo for a weapon and a unicycle level.

It seems like you had a lot of projects on the go – you then worked on the original design for a PC game called *Dreamweb* and a couple more abandoned games for BITS?
I was working on an N64 game called *Thieves World* and Nintendo were quite keen on it. Miyamoto even visited our offices. It was third-person stealth game and originally had no guns at all in it. It was stuck for ages and finally materialised as *Rogue Ops* for the GameCube. By then I was part of a big team and was quite good at character and control, so did most of that.

I DON'T FEEL LIKE I'M DOING ANYTHING DIFFERENT TO WHAT I WAS DOING 20 YEARS AGO

And you worked on a proposed virtual reality game too?
It was called *Nihilist,* and I did it with Martin Wheeler. I designed this basic turret-shooter using the VR hardware. It was working really nicely, but the hardware was too expensive. BITS reckoned they needed to do it under £100, but it was looking more like £500, so they shelved the unit. But we had a half-finished game, so changed it into a free-roaming shoot-'em-up. Martin's a fantastic designer with a terrific imagination and we had a lot of great characters. But there were a lot of space games out there, so I don't think it was successful.

After working on *Rogue Ops* and the adaptation of *Constantine*, you followed Foo Katan to his new operation Origin8.
Foo is a good reader of a market and with the iPhone coming out he saw potential, and hired freelancers to produce games for the casual market. We had an office in Camden for a short while but now we just work from home and have weekly Skype calls. My last project was *Transport Tycoon* and I'm currently working on *Future Sense*, a stealth mystery adventure with a time travel twist.

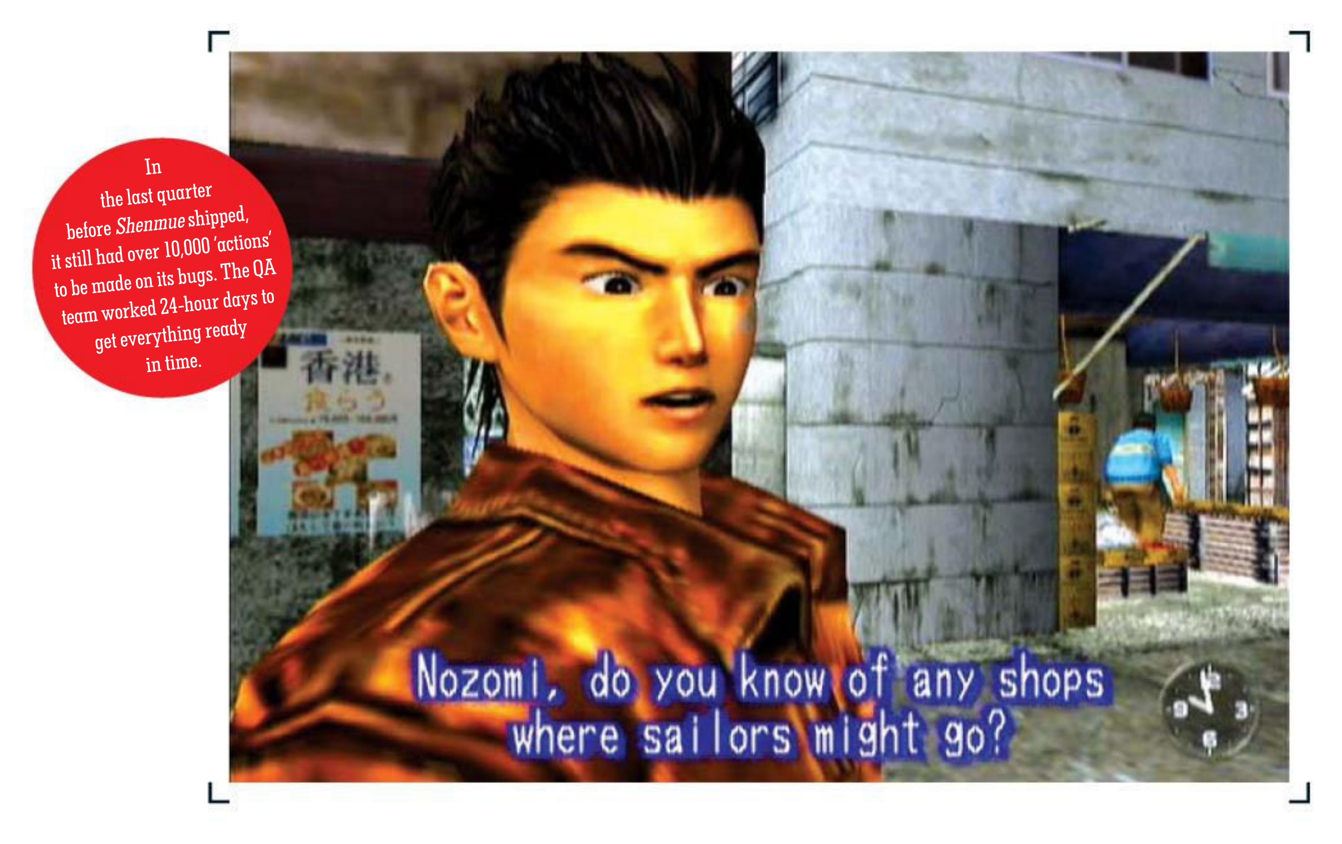
You've worked in the industry a long time. How do you look back at your career, and what games are you proudest of?
It's crazy looking back and seeing what's become of the industry today in comparison. But I'm proud to have been part of that early period and I worked with and met a lot of great people back then. *Rex* is my favourite game – it all came together for that one – and I'm also proud that we tried something different with games like *Slaine*. In some ways it's come full circle with iOS development and actually I don't feel like I'm doing anything different to what I was doing 20 years ago. And, yeah, I still love it!


■ [iOS] *Transport Tycoon*, one of Austin's more recent games.

GAME CHANGERS

SHENMUE

Released: 8 November, 2000 **Publisher:** Sega **Developer:** Sega AM2 **System:** Dreamcast



In the last quarter before *Shenmue* shipped, it still had over 10,000 'actions' to be made on its bugs. The QA team worked 24-hour days to get everything ready in time.

One of Sega's most influential games, Shenmue was a ground-breaking force in the open-world genre, and represented the height of Sega's creative prowess. Known for its spectacular budget and feats of engineering, Shenmue changed the gaming world. We examine just how it managed to do so…

SHENMUE WAS ORIGINALLY planned to be an extension of Sega's esteemed *Virtua Fighter* series – an RPG addition to the fighting game's world on the Sega Saturn. The source code of *Shenmue* still reflects this – right from the way the game was built to the character models and scripts they run on (protagonist Ryo is still referred to as 'AKIR' in the code, for example, harking back to his original form of *Virtua Fighter*'s Akira).

As sales of the Sega Saturn began to wane in North America, it became clear to the Japanese branch of the publisher that something drastic needed to be done – the company had already sunk a considerable amount of budget into the title, as well as two years of development time, and it was quickly becoming evident that launching *Shenmue* on the Saturn wouldn't return the capital. *Shenmue*'s earliest form was re-worked, renamed 'Project Berkley' and adapted for the Dreamcast – which was still due to launch.

Under its new title, *Shenmue* managed to attract a team of 87 programmers – an insane undertaking for a game that would release in 1999. Lead systems programmer Tak Hirai has stated that simply debriefing with each programmer after a milestone was completed would take 14 and a half hours – and that was only if he took ten minutes with each staffer. As strenuous as this was it did have overall positive implications for Sega: Hirai was in charge of streamlining the programming language and pipeline for the Dreamcast, so everything he learnt from his team fed directly into the architecture

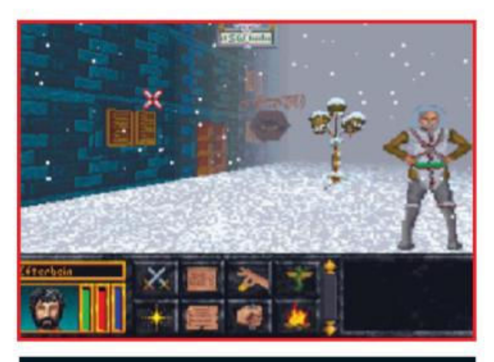
THE ANATOMY OF SHENMUE

SHENMUE MAY HAVE BECOME THE BENCHMARK TO WHICH ALL OPEN-WORLD GAMES WERE JUDGED, BUT HOW DID IT COME TO BE?



VIRTUA FIGHTER

★ The game's working title on the Sega Saturn was '*Virtua Fighter: Akira's Story*' – intended to be a game about the fighting game's hero.



NINETIES RPGS

★ In the research phase of the game, Suzuki played through practically all of the JRPGs from the Nineties, and was unimpressed by the scant interactivity he found there.



EIGHTIES ADVENTURES

★ After RPGs, Suzuki moved onto Eighties adventure games: he enjoyed world-building, but wanted to make something more player-focused.

of the Dreamcast. Long story short: without *Shenmue*, Sega's last console wouldn't have been the powerful, impressive beast that it was.

But Shenmue's influence extended far beyond simple hardware upgrades – the software showed off in-game is still impressive, some 16 years later. Hirai has noted that making everything feel completely natural – making the player truly feel 'at home' in *Shenmue*'s world – is a testament to how many 'invisible' features are going on behind the scenes. In-depth mechanics like the weather system, the day/night cycle and a massive 300 non-player character roster all had to work cohesively to make sure the game didn't crash or burn out the Dreamcast's processing potential.

As such, Hirai notes, all NPCs and weather effects were intentionally placed in certain areas so that the Dreamcast never had to render more than it was capable of at any one time. Think of it like a heat map – where if one section of the game was reading 'too hot', features were moved or altered so that the world would still work, but run at a less hungry rate. For a game released in 1999, these are amazing features. At the time, we'd never seen an open world like this before; for its day, *Shenmue* was the closest thing to a living, breathing virtual world a player could ask for.

SHENMUE WAS THE CLOSEST THING TO A LIVING, BREATHING VIRTUAL WORLD A PLAYER COULD ASK FOR

KEY FACTS

- Yu Suzuki's original plan for *Shenmue* was a game that lasted 45 hours, split into 'fighting', 'training', 'linking', 'moving', 'conversation' and 'dungeon' denominations.
- Suzuki has claimed that if his team hadn't compressed their initial vision, *Shenmue* would have been 'between 50 and 60 discs' in size!
- The design motto for *Shenmue* during development was simply: 'leisurely, fully, gently'.

It was partly to do with the scope and scale of the world but the little details were what really helped to solidify *Shenmue* as a deeply immersive experience. Like Ryo's shadow; it fell at a different angle depending on the time of day. And there were individually animated fish that swam around in a koi pond. Birds scattered and flew away as you approached them; there was a stray cat that you could look after; you could build a collection of capsule toys; you could spend all your hard-earned wages in a realistic videogame arcade if you wanted to. All of these small additions to the game required lines and lines of code, hundreds of textures or assets, and countless hours of work. And for what? A potential small reward, a missable cutscene, a small moment of extra immersion for the player.

■■■ *Shenmue* is remembered fondly for the way it coaxed players into a false sense of security in this new, exotic yet domestic world: it was a level of escapism and immersion that games until this point hadn't offered. It was a simulator, at its core, putting you in the shoes of a kid who not only wanted revenge for his dead father, but also wanted to be a better person, a stronger person. It's a coming of age story that isn't scared to show you the dirt under the fingernails of life in Eighties Japan, it's a game that pushed console hardware further than it had been pushed before. It was a game whose legacy is undeniable.

Without *Shenmue*, it's likely that we wouldn't have made such strides into the open world genre so quickly (and so adeptly), it's likely Sega would have died a miserable death long before it stopped producing hardware, and it's likely that a lot of gamers' tastes wouldn't have been shaped the way they have. *Shenmue* was a watershed moment, not just for Sega, but for the industry at large, too.



GAME CHANGERS

8 OTHER GAMES WITH UTTERLY MENIAL JOBS

ONE BIG ASPECT OF SHENMUE'S GAMEPLAY WAS INDULGING YOURSELF IN MENIAL JOBS. THIS SET OFF A TREND THAT'S BEEN KEPT ALIVE AND WELL UNTIL THIS VERY DAY. HERE ARE OUR EIGHT FAVOURITE POINTLESS TASKS IN GAMING



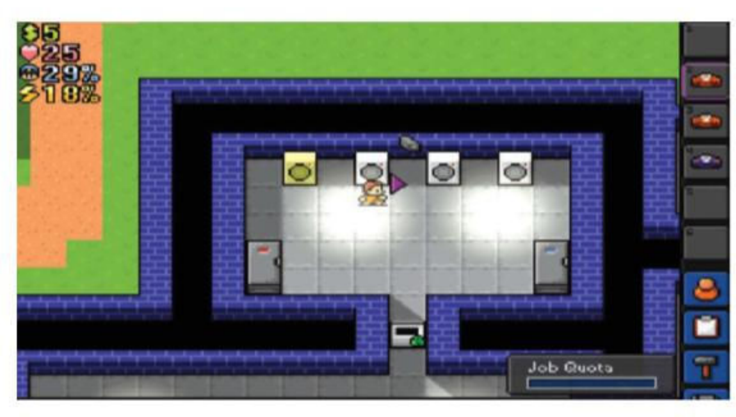
CHECKING PASSPORTS

THE ENTIRETY OF *Papers, Please* revolves around you – you lucky peasant! – after you've won a lottery and have the honour of protecting Arstozka's borders from would-be immigrants or terrorists. It perfectly deconstructs the way games, well, gamify things and makes you really care about your job: if you get it wrong, or do it *too* well, your family won't eat, you can't afford medicine or rent, and you *will* die. Lovely.



COLLECTING COCONUTS

IT'S HARD WORK, but someone's got to do it, right? Although, do they…? It's probably less strenuous than some of the other *No More Heroes* jobs – from minesweeping a beach to collecting cats, the game offered a bizarre slew of extra-curricular activities. What made it worse was doing these tasks with the Wiimote – it took quite a bit of effort to gather all the coconuts, and that slow waddle your hero did when holding the goods? Infuriating.



DOING A MURDERER'S LAUNDRY

■ WE'RE ASSUMING HERE that the laundry we're doing is that of murderers – after all, you get put in some pretty high-security prisons in *The Escapists*. Though you're supposed to be sat in this room, doing this job for about four in-game hours a day, you can actually nick one of the dirty guard uniforms to wear it after hours, which is something of a bonus.



CLEANING UP BLOOD

■ *VISCERA CLEANUP DETAIL* (yes, that's its actual name) is a game where the core conceit is that you are a *janitor*. That's it – no frills, lots of mess, you're required to turn disgusting, blood-soaked walls into their natural sparkly state. Drop debris, spill a used bucket or got blood on your shoes and you're just going to make things worse for yourself. And this is the whole game.



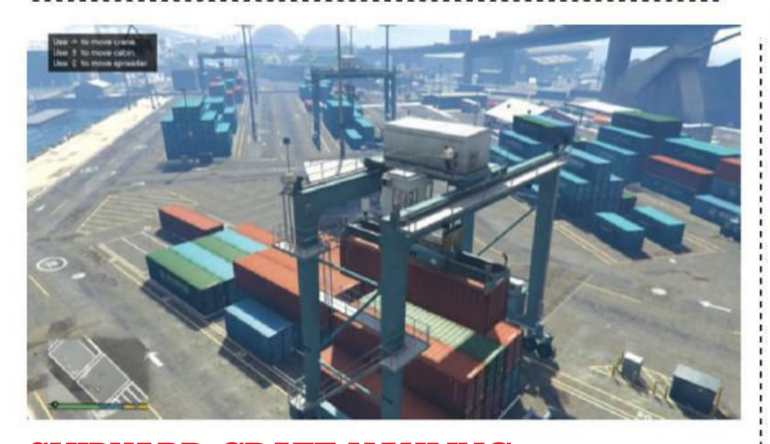
RUNNING A SHOP

■ THE MOST INFURIATING mini-game in the original *Digimon World* game doesn't run on logic, but on the whims of idiots that demand you sell them items at a loss, otherwise they'll tell everyone else not to bother coming. You're on top of a cliff, in the heat, the only food source for miles, and these monsters tell you to give it to them at half the cost price? The nerve.



TEACHING MATHS

■ IN *PERSONA 4*, you can power up your id (or ego, or superego – or whatever your Persona is supposed to represent) by heightening your social links: this can be achieved by romancing people, getting jobs or just being a good guy. Thing is, once you boost your confidence, you can be a bit more… aloof. Tutoring a snotty little kid might just push you over your limits…



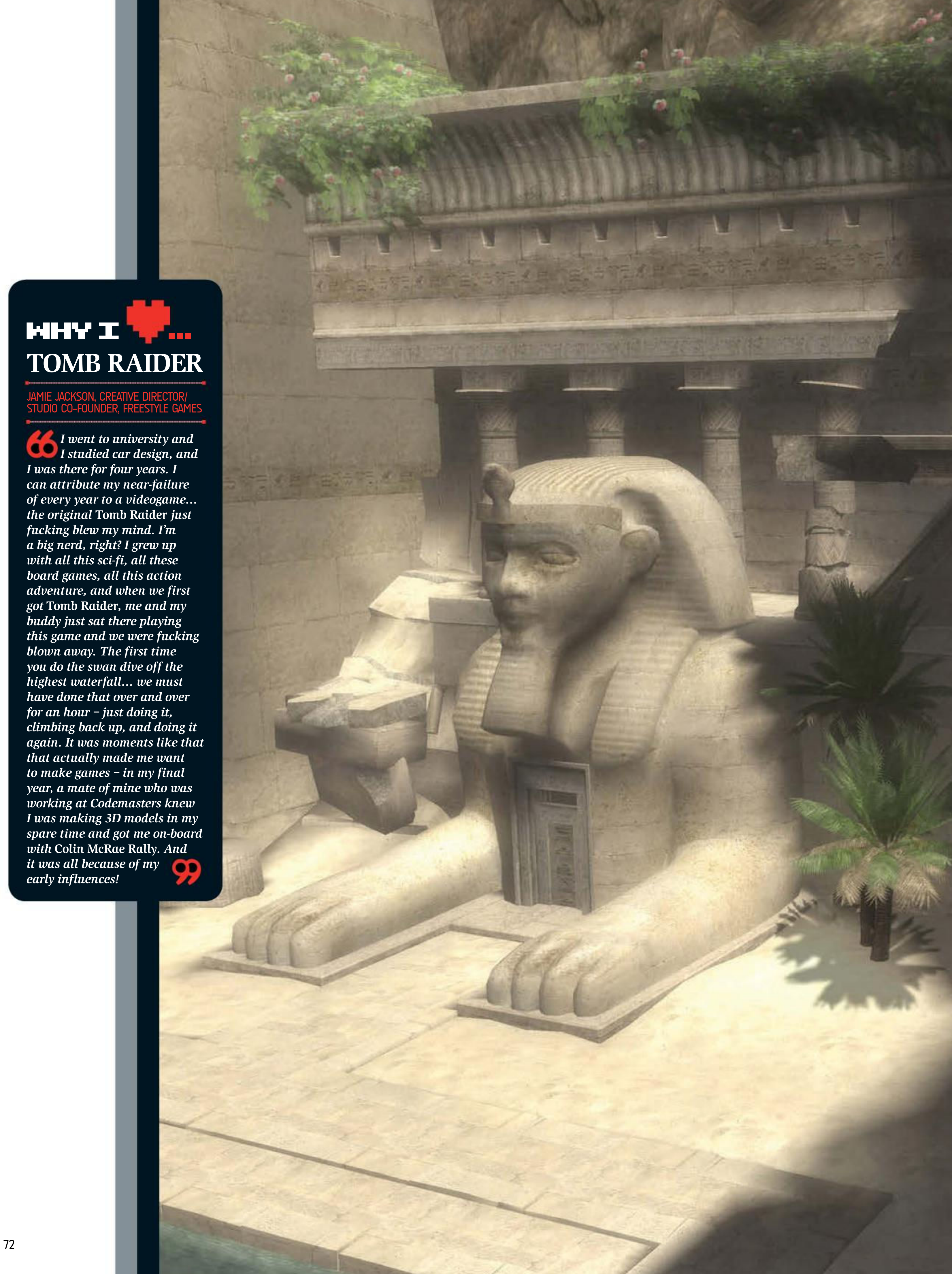
SHIPYARD CRATE-HAULING

■ THE MOST TENUOUS and stressful part of *Grand Theft Auto V* wasn't the torture scene, it wasn't the countless driving missions, or that one part of the game where you have to go scuba diving *forever*, no. It was the bit where you get a job hauling shipping containers around a dockyard for about eight hours at a time. You could say, at this point, the game went 'full *Shenmue*'.



DELIVERING PAPERS

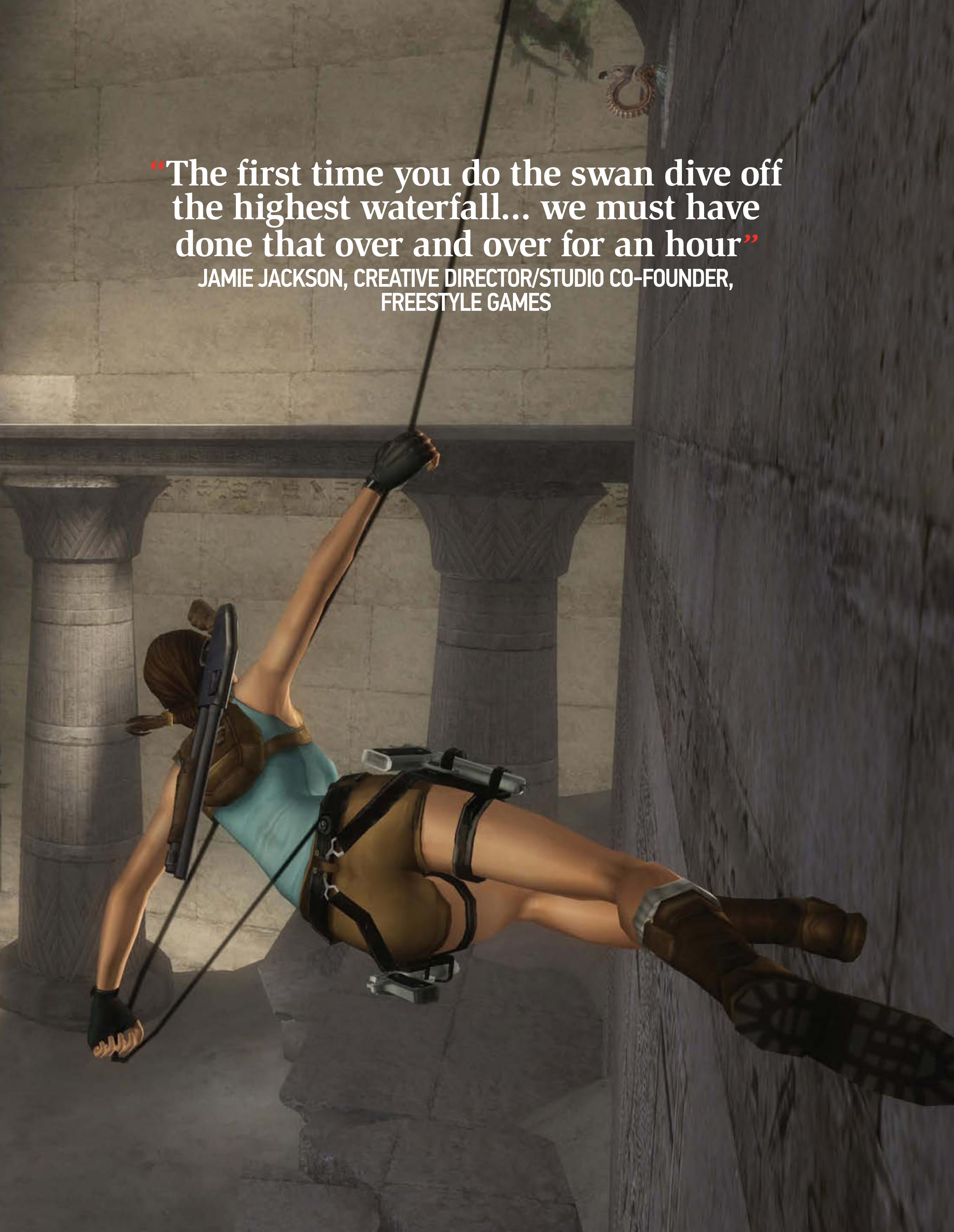
■ THIS ONE'S PRETTY self-explanatory. The game lets you choose one of three routes (Easy Street, Middle Road and Hard Way) and then tasks you with delivering as many papers as possible to the inhabitants of the suburb. The kid in *Paperboy* manages to turn up for his *incredibly* long routes every day of the week, which seems a bit much to us, especially considering that he seems to live in an area where *no-one* has any regard for road safety.



WHY I ❤... TOMB RAIDER

JAMIE JACKSON, CREATIVE DIRECTOR/ STUDIO CO-FOUNDER, FREESTYLE GAMES

"I went to university and I studied car design, and I was there for four years. I can attribute my near-failure of every year to a videogame... the original Tomb Raider *just fucking blew my mind. I'm a big nerd, right? I grew up with all this sci-fi, all these board games, all this action adventure, and when we first got* Tomb Raider, *me and my buddy just sat there playing this game and we were fucking blown away. The first time you do the swan dive off the highest waterfall... we must have done that over and over for an hour – just doing it, climbing back up, and doing it again. It was moments like that that actually made me want to make games – in my final year, a mate of mine who was working at Codemasters knew I was making 3D models in my spare time and got me on-board with* Colin McRae Rally. *And it was all because of my early influences!"*



> "The first time you do the swan dive off the highest waterfall… we must have done that over and over for an hour"

JAMIE JACKSON, CREATIVE DIRECTOR/STUDIO CO-FOUNDER, FREESTYLE GAMES

BRING IT BACK!

AFTER THE SURPRISE RE-INTRODUCTION OF SHENMUE TO THE GAMING WORLD, WE STARTED THINKING 'IF THAT'S POSSIBLE, WHAT ELSE COULD WE BRING BACK WITH ENOUGH FAN-POWER?' WE BEGAN TO THINK ABOUT WHICH GAMES SHOULD BE RERELEASED, AND WHO'D BE THE BEST DEVELOPER TO DO IT

1. F-ZERO

Last Release: F-Zero Climax (2004)
Dream developer: Criterion

Why:



F-ZERO SET THE standard for the racing genre, outright inventing the 'futuristic racer' in the videogame space – going on to inspire *WipEout* and *Daytona USA*. It's been due a rebirth for a while, and despite some loving nods to the franchise in the most recent *Mario Kart*, we're still eagerly waiting a *true* successor to the *F-Zero* throne. Enter Criterion, master of the modern racer, parent of *Burnout* and surrogate family to *Need For Speed*. Criterion would do justice to the rich legacy of *F-Zero*, making a blistering, futuristic racer with through-the-roof production values and gameplay like we might have seen in old Criterion game, *AirBlade*.







Likelihood: 50%

We may well see another *F-Zero* game surface on the NX in future, but Nintendo is being very tight-lipped about it for now.

2. GRADIUS

Last Release: Gradius the Slot (2011)
Dream developer: Housemarque

Why:

THE HORIZONTALLY-SCROLLING shoot-'em-up that introduced the world to the Vic Viper was infamously tough – an arcade shooter that perfected the balance between skill-based play and coin-hungry cabinets. It set off a trend in ultra-hard shooters and continued on as a franchise for seven generations, inspiring currently operating developers like Hideki Kamiya and Hideo Kojima. We'd like to see Housemarque give the series a go – it's the undisputed champion of the current shoot-'em-up scene, and we'd be interested to see the developer step out of its arena-shooter comfort zone.

Likelihood: 30%

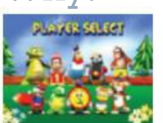
The last three attempts at resurrecting *Gradius* have totally failed during development, so we're not sure if we'll ever see another one surface. Konami retains the licence, though, so it might still happen.



3. DIDDY KONG RACING

Last Release: Diddy Kong Racing DS (2007)
Dream developer: Sumo Digital

Why:



WHEN THE GAME was first released in 1997, it was the fastest-selling game in the world – selling just under 800,000 copies in its first two weeks on the shelves. It was most notable for its distinctive adventure mode – something the karting games of the time didn't really have. Considering how well Sumo Digital have done with the adventure side of the *LittleBigPlanet 3* and the karting of *Sonic And Sega All-Stars Transformed*, we think the developer would be a perfect match for a potential reboot… especially when you consider Sumo is a British studio and could spiritually replicate what Rare did in making a Western Nintendo karter in the first place!

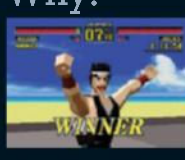
Likelihood: 15%

Who can predict Nintendo? Movement appears to be starting up on NX announcements, so maybe we'll hear about a *Diddy Kong* game for that platform.

4. VIRTUA FIGHTER

Last Release: Virtua Fighter 5 Final Showdown (2012)
Dream developer: AM2

Why:



THE GRANDDADDY OF 3D fighting games has been unfairly ignored by Sega for the last few years, treated only to a few slipshod upgrades and re-releases, letting genre rivals *Tekken* and *SoulCalibur* run rampant with sequel after sequel, unchallenged. The incredible realism and technical proficiency that went into making the games still holds up, and we'd love to see a new-gen interpretation of the tournament-style rules. To that end, we wouldn't want to give the franchise to anyone other than its spiritual parent – we've got Namco Bandai iterating the 3D fighting game in its own way over on the other side of the industry, if we had AM2 bringing it's own take, *everyone* would win

Likelihood: 60%

Sega has promised to learn from its recent acquisition of Atlus about how to cater to fans… but when it said that, all we heard was 'You might get a new *Virtua Fighter*'.

5. CASTLEVANIA

Last Release: Castlevania: Lords Of Shadow 2 (2014)
Dream developer: Ska Studios

Why:



NOW THAT KOJI Igarashi has taken to Kickstarter to make the *true* spiritual successor to *Castlevania*, Konami must have been shown that there's most certainly an appetite for the original -vania style of game alive in our collective minds. It's all well and good having these cinematic iterations of the franchise in the *Lords Of Shadow* games, but maybe Konami should consider doing a *Tomb Raider* and separating the IP into two halves: the 'modern' portion, and the more classic version for fans of the legacy games. We believe that Ska Studios would do great justice to the series: with game series like *The Dishwasher* and *Charlie Murder* under its belt, we *know* the studio would nail the dark tone and 2D platforming portions of the series… it just might take Ska about 12 years to actually complete.

Likelihood: 90%

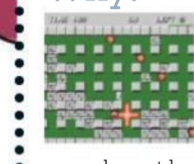
Konami would be remiss if it didn't bring back the *Castlevania* series, especially since *Bloodstained* received so much attention when it hit Kickstarter.



6. BOMBERMAN

Last Release: Bomberman iOS (2014)
Dream developer: Nintendo EAD

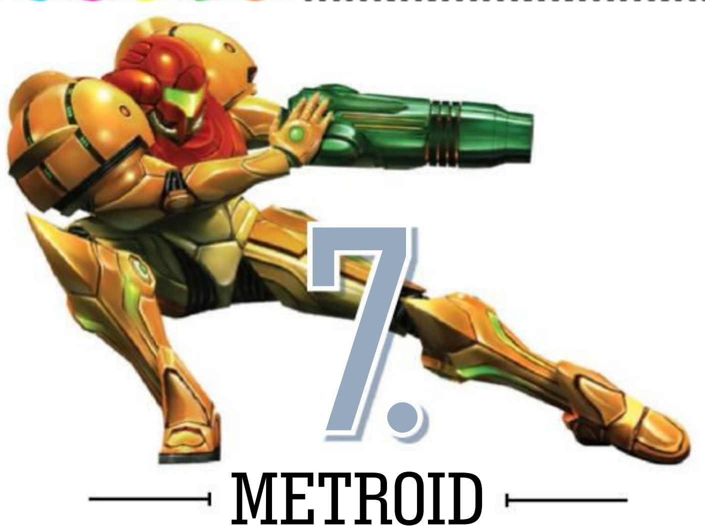
Why:



HUDSON SOFT'S MAZE-based party game favourite has been missing in action for a while (on consoles, at least). Another licence Konami managed to acquire – then ignore – when it picked up Hudson Soft in 2012, *Bomberman* clearly has an audience waiting for him when he makes his return: you don't get put into over 70 games without a pretty devout fanbase on the other side. We actually think a licence with as much legacy and impact as *Bomberman* would really suit Nintendo: stylistically, *Bomberman* fits in with the wider Nintendo roster, and Nintendo EAD put fun and purity of the game first – more than any other developer. That's what *Bomberman* deserves.

Likelihood: 25%

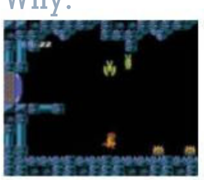
Who knows if Konami even wants to rescue Bomberman, but we'd like to think the publisher would: if nothing else, he's a proven money-maker, and has been for years.



7. METROID

Last Release: Metroid: Other M (2010)
Dream developer: Moon Studios

Why:



NINTENDO MAY HAVE graced us with some movement in the *Metroid* series with the announcement of *Metroid Prime: Federation Force* – proving that the publisher at least acknowledges the franchise still exists – but it's not a real *Metroid* game. Not by a long shot. Considering every Nintendo home console (barring the Nintendo 64) has a *Metroid* game to its name, we can't imagine Nintendo skipping the Wii U entirely… surely? If we had our way, we'd steal Moon Studios (*Ori And The Blind Forest*) away from Microsoft and give the developer to Nintendo: *Ori* was one of the best metroidvanias we've played in a good few years, and the presentation was nothing short of spell-binding. We believe the fledgling studio could make a *much* better *Metroid* game than any that have been published in the last few generations of gaming.

Likelihood: 80%

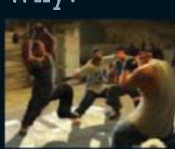
Nintendo is aware that players want a 'proper' *Metroid* game, and has officially acknowledged that. Watch this space.



8. DEF JAM

Last Release: Def Jam: Icon
Dream developer: NetherRealm

Why:



UP-CLOSE-AND-personal brawling, no in-game HUD, having music be a *huge* part of combat, progressive visual damage and some of the biggest names in hip-hop and rap… what isn't to like about that set-up? The licence to *Def Jam* games is still held by EA, but we can't imagine Nas or Ludacris or Ghostface Killah would want to re-submit their tracks or likenesses to a game this violent and brutal now that we're edging ever closer to the uncanny valley. But if they *did*… how amazing would it be to see NetherRealm take the reins of the operation? That level of brutality would go hand-in-hand with the lyrical content of the majority of modern hip-hop, right? Why stop at throwing Sean Paul under a train when you could, say, rip off Kanye's arms and wail on his remaining body with them?

Likelihood: 1%

Never say never, but we really can't see EA reviving this franchise for any reason.



9. JET SET RADIO

Last Release: Jet Set Radio HD (2012)
Dream developer: Insomniac Games

Why:



THERE JUST AREN'T enough games with attitude out there at the moment – not by a long shot. *Jet Set Radio* was most certainly a product of its times, and it might take some revolutionising to become relevant again now, but surely Insomniac's *Sunset Overdrive* would be an adequate dry-run of that? Take out the guns and speed everything up a bit and you've got a perfect foundation for the next great *Jet Set* game.

Likelihood: 10%

Sega owns the rights to *Jet Set Radio* still, but none of its internal studios seem suited to the franchise. There have been no updates on the IP for years.



10. MEDIEVIL

Last Release: MediEvil: Resurrection (2005)
Dream developer: Double Fine

Why:

ORIGINALLY DEVELOPED BY Sony's own internal studio in Cambridge, England, *MediEvil* has become something of an icon to the PlayStation… despite not having its own game released on the platform since the PSX. It's surely time for Sony to ship that licence out, right? To fire it on over to the comedy geniuses over at Double Fine and let the studio have its fun with *MediEvil*'s staple humour-cum-action platforming-lite gameplay? It's time to resurrect the noble Sir Daniel Fortesque once again.

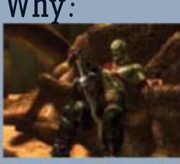
Likelihood: 30%

The *MediEvil* licence has been dormant for a good ten years now – while it could come back, we're not holding our breath for it.

11. LEGACY OF KAIN

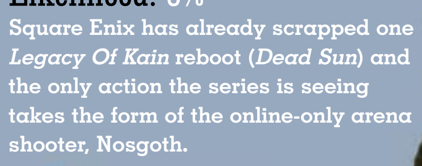
Last Release: Legacy Of Kain: Defiance (2003)
Dream developer: Visceral Games

Why:



THE ACTION-ADVENTURE series revolving around the vampire Kain and his chronologically inconsistent journey through time was left incomplete – the final episode in the released library of games leaving more loose threads than it tied up. Original series writer Amy Hennig recently joined Visceral Games (*Dead Space*, *Dante's Inferno*) and is working with the EA studio on a narrative-led *Star Wars* game… but imagine if that perfect alignment of creative energy was ushered into rounding off the gothic epic in Nosgoth that began some 20 years ago. It would be the kick up the backside the traditional action-adventure game needs.

Likelihood: 5%

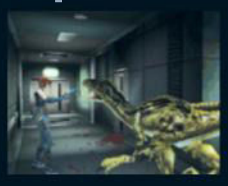


Square Enix has already scrapped one *Legacy Of Kain* reboot (*Dead Sun*) and the only action the series is seeing takes the form of the online-only arena shooter, Nosgoth.

12. DINO CRISIS

Last Release: Dino Crisis 3 (2003)
Dream developer: Creative Assembly

Why:



DEVELOPED BY THE same team that came up with *Resident Evil* (including Shinji Mikami), *Dino Crisis* is the action-horror sister game to the stalwart Resi franchise. But where *Resident Evil* went from strength to strength (debatably), *Dino Crisis* faltered on the third iteration, sending the story to space and never making it back to Earth. Dinosaurs are *in* right now – *Jurassic World*, *Horizon Zero Dawn*, *Ark: Survival Evolved* – so what better time will there ever be to bring the series back to life? Ship it out to Creative Assembly (*Alien: Isolation* team) and we'll have the dino-led survival horror we didn't even really know we wanted that badly, until we started thinking about it.

Likelihood: 5%

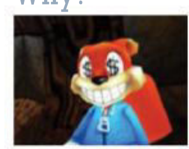
Capcom seems to have totally forgotten that it owns the rights to *Dino Crisis*, and seems less interested than ever in bringing it back.



13. CONKER

Last Release: Conker: Live & Reloaded (2005)
Dream developer: Media Molecule

Why:



CONKER WAS PROBABLY the most mature game franchise ever established on a Nintendo console. The main character (a foul-mouthed alcoholic squirrel) only ever wanted to get back to his girlfriend Berri, and everything seemed to get in his way. Despite not selling well on its first outing (little advertising and coming out at the end of the Nintendo 64's life are to blame), *Conker* gained a cult following, and won over a lot of older fans. We'd like to see a spiritual successor to that, both in gameplay and developing the story, with Media Molecule heading up development on a new *Conker* game: toning down the overly twee presentation and applying what the studio has learnt to a game aimed at adults.

Likelihood: 90%

We're getting some *Conker* content in *Rare Replay*, but we're almost certain we'll be getting another *proper* game sometime soon.



DISCWORLD

Last Release: Discworld Noir (1999)
Dream developer: Telltale

Why:

THE DISCWORLD UNIVERSE is so deep and rich with story that it's outrageous there haven't been more games based on the property. With the recent passing of Terry Pratchett and a continued push by Sky TV in bringing the books to life, it seems like it's the right time to cross-pollinate media with a game series. Who better to take on the mantle of narratively-led stories than Telltale, too? The studio has already earned its stripes with *Borderlands*, *Fables*, *The Walking Dead*, *Game Of Thrones* and even *Minecraft*… so what would stop the team's impeccable writers from making the Discworld mythos fit into a new-fangled point-and-click adventure? The series has excelled in that genre once before, it could do it again.

Likelihood: 30%

The Discworld licence is in a state of flux right now, but we can imagine – with the right partnership in place – a fantastic game that would do justice to Pratchett's world







BLACK & WHITE

Last Release: Black & White 2: Battle Of The Gods (2006)
Dream developer: Firaxis Games

Why:

THE (ALMOST) UI-free god game from the mind of Peter Molyneux has been forgotten by its creator in favour of newer and shinier endeavours, but we'll always remember the impact *Black & White* had on the industry – furthering the work *Age Of Empires* and *Pharaoh* had been doing within the god-game sub-genre. If we were to see the game re-born, we'd like to see *Civilization* developers Firaxis Games take a punt at it: it's more fantastical and freeing than the more simulation-based games the studio is used to, and we'd like to see what the development team could do with that kind of god-like freedom.

Likelihood: 10%

Black & White, along with *Command & Conquer*, seem to be at the bottom of EA's priority list, unfortunately



GEX

Last Release: Gex 3: Deep Cover Gecko (1999)
Dream developer: DrinkBox Studios

Why:

A PLATFORM-ACTION game inspired by insipid American tv culture, that featured a *literal* lounge lizard as its mascot? What's not to love? *Gex* as a series managed to sell over 15 million units in its lifetime, and since then everyone seems to have forgotten about the dimension-hopping gecko. DrinkBox Studios would make a good home for *Gex* – its penchant for sharp, cartoony artstyle would support *Gex*'s channel-hopping, and the studio's familiarity with fourth-wall breaking humour would work perfectly alongside the art direction.

Likelihood: 80%

In 2015, Square Enix announced that it owned the rights to *Gex* and have opened up pitches to indie developers

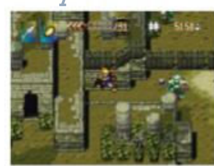




17. THE ADVENTURES OF ALUNDRA

Last Release: Alundra 2: A New Legend Begins (1999)
Dream developer: From Software

Why:



BENEATH ITS DELIGHTFUL 32-bit top-down classic RPG look, *Alundra* was a dark, twisted action adventure. Like *TLOZ*, you wake up with no memory, only instead of a Princess, a sword, and a noble quest that proves your bravery, Alundra finds a gloomy town, haunted people, and a mysterious darkness imbuing the land with misery. Plus, he can enter people's dreams, and that would be excellent creative justification for a developer like From Software to get *weird*. With a strong puzzling element that brutally punished you for messing up, *Alundra* also had great, often disturbing bosses. Is this sounding familiar? We would *love* to see this franchise brought back by a studio that excels in twisted worlds and epic boss battles.

Likelihood: 20%

***Alundra* has been missing in action for so long, we're not even sure who owns the IP. We're living through a renaissance of old IPs rebirthing though, so we remain hopeful.**

OKAMI

Last Release: Okami (2006)
Dream developer: Thatgamecompany

Why:



OKAMI'S BEAUTY LAY in the fact it was a *Zelda* game reskinned and re-energised, and presented in a beautiful, unique way. There are an overwhelming amount of 3D games these days that take the form of shooters in various dingy shades of brown and grey, so coming up with a developer that could really do this 3D platforming world justice was fairly tricky. We settled on Thatgamecompany – creator of *Journey* and *Flower* – as it would surely do justice to a stylish, minimal *Okami*, lovingly created and wholly loyal to its mythical roots.

Likelihood: 10%

***Okami* is in Capcom's hands (for better or worse) so we imagine it'll turn up once the publisher needs another funding boost again.**



18. GRANDIA

Last Release: Grandia Online MMO (2009)
Dream developer: Ubisoft Montreal

Why:



LET'S FACE IT, Ubisoft Montreal has already got *Grandia*'s combat system locked down. The whole initiative bar of semi-turn-based combat is a fantastic way to make RPG combat fun and engaging, and we're surprised more games haven't included it since. Plus, endearing though *Child Of Light* was, it was storybook shallow in its approach to plot. It worked fine for what it was, but that beautiful engine being used to created a deep world with characters we can really get behind and a complex RPG plot to unravel? In the UbiArt engine? Yes please, Ubisoft Montreal.

Likelihood: 5%

Game Arts hasn't released a game since 2012, but with *Grandia II Remastered* coming any decade now, it's unlikely to be giving up the franchise.



20. BEYOND GOOD AND EVIL

Last Release: Beyond Good And Evil (2003)
Dream developer: Naughty Dog

Why:

COMMERCIALLY DISASTROUS BUT critically acclaimed, *Beyond Good And Evil* was envisioned as the first part of a supposed trilogy by *Rayman* creator Michel Ancel… but the awful sales prevented Ubisoft from investing in the series further. We'd like to see Naughty Dog – and the narrative geniuses that operate behind those closed doors – have a go at continuing Jade's story: it's well known that Naughty Dog prioritises story above all else, and that's the kind of treatment this series really deserves.

Likelihood: 80%

It remains likely that we'll see another *Beyond Good And Evil* game soon – Ubisoft Montpellier has been working on something for a few years now, but it just keeps being pushed back. We live in hope.

MINH ON FIRST MEETING COUNTER-STRIKE COCREATOR JESS CLIFFE

"WHEN WE FIRST met with Valve and agreed to give them the rights to *Counter-Strike*, [Jess] Cliffe was still at school. He spent another three years there and then went down to Seattle to start at Valve. It wasn't until three years after we were at Valve that I actually met Cliffe in real life. We'd built a strong relationship by this point, but still, it was surreal."



INTERVIEW

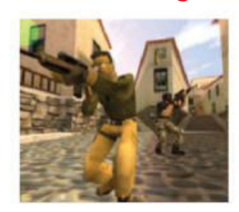
MINH LE

While at university, Minh Le made game mods in his spare time. One such mod of his, Counter-Strike, would go on to become one of the most popular videogames of all time

SELECT GAMEOGRAPHY



Action Quake 2 (1998)
Designer



Counter-Strike (1999)
Cocreator and lead designer



Rust (2013)
Designer

What were your favourite games when you were growing up?
I was really into all sorts of genres. Back then RPGs were a big thing – I really got into *Ultima VII* and the *Wing Commander* series. *Strike Commander* was also another game made by Chris Roberts; I was a huge fan of his games and they were [a] really big part of my gaming experience [when I was] growing up. Obviously, when *Doom* came out that took the whole industry by storm. I was one of the guys that was really influenced by that. And also, the *Rainbow Six* series. There [are] so many [that influenced me].

You taught yourself coding when you were still at university – were you a natural coder or was it something that you struggled with at first?
With programming, it was a bit of a struggle. The first language I learned [was] C++ and I think it took me about a year in my spare time while I was studying. I must've spent around 20 hours a week just picking up the basics and coming to grips with it. I guess you could say it was kinda slow.

You created *Navy Seals Quake* and *Action Quake 2*, two mods that used the original Quake C engine – was it a good engine to work on when you were still learning?
The Quake C engine is a subset of C++ and I think that helped me because it gave me a starting base. When I first picked up Quake C I actually had no programming experience – the only prior experience I had was a little bit of visual BASIC and this was even before I started university, when I was in grade 12. I was pretty raw at the time.

Did you code *Counter-Strike* on GoldSource? If so, how was this different?
Yes, it was the *Half-Life* engine. It was a bit more challenging because there were more modules involved and there was more code [to do]. There was a lot of different code for the rendering and also how it did the networking. It was completely different from Quake C, so not only did I have to learn C++, I actually had to learn how the GoldSource engine worked, which was challenging in and of itself.

> **I ACTUALLY DIDN'T THINK THAT THEY'D SELL THE GAME, I WAS QUITE NAIVE… SO IT SURPRISED ME**

At the time, what were your expectations for *Counter-Strike* – had you even thought of it as something that you would eventually be making some money from?
It was strictly a hobbyist mentality that I had. Even up until the point that Valve contacted us and bought us out, I actually didn't think that

they'd sell the game, I was quite naive. I just thought that they would make another version of it – a *Counter-Strike 2* or something – so it kind of surprised me when they decided to just polish up the existing *Counter-Strike* [that I made] and actually sell it as a standalone game. At the time, the game was a free mod so anyone that had Half Life could just download it. I was shocked that they'd actually want to sell it.



Minh considers *Action Quake 2* to be less serious than *CS* with its distinct focus on the use of explosives in battles.

What was the time frame before making *Counter-Strike* and Valve being in touch?
I think it was around beta4 that they contacted me. Beta4 happened [about] a year after I released the very first beta1 so I spent about two years working on *Counter-Strike* beta1, then I spent about three months doing beta2 and beta3 was another few months after that. I spent a few months between each beta.

How did it feel when Valve first showed interest in *Counter-Strike* and approached you when you were just 21 years of age?
It was completely out of this world. I think [my age] might've affected my judgement, I was willing to do anything for them. I think it put me in a position where I probably wasn't thinking rationally. That said, I was elated. I really looked up to them, I still do as a developer, so for a 21-year old, you're on cloud nine.

How different was the mod you had originally worked on to *Counter-Strike* as it appeared in its version 1 form?
At first it was quite bare bones. It didn't contain the bombing scenario, it didn't have a lot of other features, but I think the core game was already there in beta1. For me, the core game was basically all about buying your guns, without respawning, all with a focus on teamwork. I think those were my main gameplay objectives.

What is it about *Counter-Strike* that resonated so much with the modding community?
Back then the modding community was in its infancy and there was a lot of talent out there that had a lot of time on their hands. They didn't really know where to direct it. When a popular game like *Counter-Strike* came out that they were drawn to, they saw the potential in it – the same way I saw the potential in it. There wasn't much competition at the time in terms of popular mods, there was *Team Fortress Classic*, but there was really only it and *Counter-Strike*. I think that allowed us to have a great deal of modders to help us out.

MINH ON MEETING SOME FANS OF COUNTER-STRIKE OVER THE YEARS:



"I'VE HAD THE pleasure of meeting a lot of people who've said that they [have] been influenced greatly by *Counter-Strike*. It always means a lot to me and as a developer the thing that I enjoy most is seeing other people enjoy your game. The financial part of it is actually a close tie with seeing others enjoy it – all developers [like to see] their games enjoyed."

What effect does having such a vocal community have on you as a developer?
Yeah, it's a challenge. I mean, even today, other games that are open development face the same issues. I'm sure *Minecraft* had similar issues and right now I'm working on *Rust*, where we have the same problems. I think as a game developer you have to recognise [just] how far you can push your design. We were always listening to the community and it wasn't often [that] they'd prevent us from trying something completely new. On this end, we're always looking to try something different, but if the feedback is unanimously negative then we have to listen. You have to get a feel for what is truly bad and what is truly unacceptable.

For the most part, you have to experiment with your ideas and stay true to your vision. It's important to have a consistent vision, something you have in your own mind and not something that's totally influenced by feedback. You're always going to get so many conflicting opinions so it's important to have your own direction, whilst paying attention to what's completely broken. There were instances in *Counter-Strike*'s development where I added a feature that almost everybody disagreed with it. It was obvious when those features came up because the amount of flack I got was incredible.

What was the feature?
It was really lame, it was terrible really. Around beta1 the players had to buy their guns at the

In response to fans, Minh implemented a pre-match grace period to stop top players gaining an upper hand.

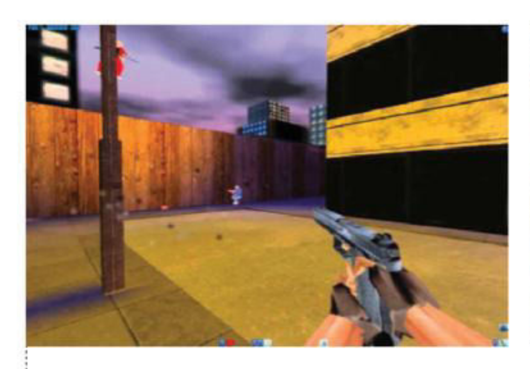


The map named cs_dust is one of the most recognised *Counter-Strike* playgrounds and still features in its modern variations.

start of the rounds. A lot of times the people who bought the guns quickest could move first. That was a big problem because the people who were able to shop quicker had an advantage in that they could move first. What I did was slow down the players' movement[s]. It was a terrible solution! Basically, I decreased the players' speed for the first ten seconds and folk thought it was terrible, [it was like] they were running in quicksand. I eventually made a ten second grace period where everyone was [permitted] to buy stuff. The feedback I got for that initial prototype was really negative.

You once made moves to remove bunnyhopping (where players use jumping to move quicker than running) from *Counter-Strike*, but you were met with resistance?
Yeah, that was a very sensitive topic for me. I thought that it really went against what I was going for in *Counter-Strike*. I wanted to emphasise realism and I thought bunnyhopping was almost too comical and it looked a bit too much like *Team Fortress Classic*. I was against it and made various attempts to mitigate it, but it was met with a lot of resistance. I had to tread carefully in that regard. Eventually, we did [reduce] the jumping, but it was never to the point where I wanted it to be. I wanted it to [get rid of it], but what we ended up settling on was something roughly halfway between what I first envisioned and what the community [really] wanted.

The eSports industry is pretty huge now. Was there a scene back then? Did you foresee *Counter-Strike* taking off within that?
I think there may [have been] one league, it was kind of around, but obviously nowhere near as prominent as it is today. The industry was in its infancy. As a developer, I didn't really like eSports because it presented a lot of restrictions on my game design. It required me to balance the game in a certain way and I didn't really enjoy that aspect of it – as a developer you want to be able to have the freedom to try out different things. At the time, eSports was fairly new so it didn't have as much flack as Valve would have today. Everything [that] they do now needs to be eSports-friendly with *Counter-Strike*.





AS A DEVELOPER YOU WANT TO BE ABLE TO HAVE THE FREEDOM TO TRY OUT DIFFERENT THINGS

Could you possibly have foreseen *Counter-Strike*'s popularity lasting until today?
No, not at all. I don't think anyone could've, to be honest. I think Valve saw it, realised it had a simple formula and realised it could be prolonged. The longevity of *Counter-Strike* is something you don't see in a lot of other games. Part of that is the simplicity of it – it's not too complicated, when compared to *DotA* or *LOL*.

What have you found are the main differences and similarities between working on the likes of *Counter-Strike* and *Rust*?
It's really similar, to be honest, not a lot's changed with regards to how the community reacts to things. Typically, communities overreact, but that's a behaviour that's always been [there] – it was the same way back in the early *Counter-Strike* days. It's just a matter of the developer having the patience and strength to put up with the negatives for a few days. If it persists then we know we have a problem.

Your nickname is Gooseman. Where does that come from?
It's from a cartoon that I used to watch when I was a kid. One of my favourite characters was Gooseman from *[The Adventures of the] Galaxy Rangers,* [which was] a sci-fi Western cartoon that was out in the late eighties. A lot of people these days haven't heard of [the programme] and the character was kind of like Clint Eastwood.



Rust takes a step back from the chaos of war zones and adopts a more survivalist-centric approach.

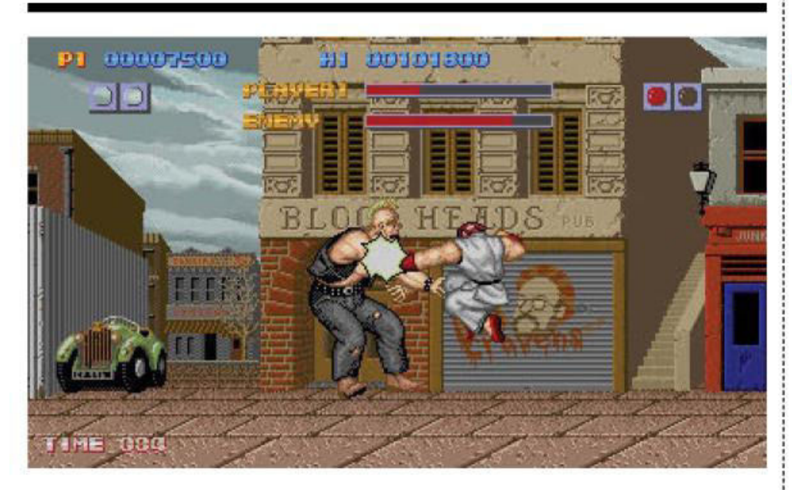
THE RETRO GUIDE TO… STREET FIGHTER

With Street Fighter V's release just around the corner, there's never been a better time to examine Capcom's seminal fighting franchise. How many of the following brawlers have you played?

CAPCOM'S *STREET FIGHTER* series is arguably the most important fighting franchise of all time. While its first release didn't exactly set the world alight, its sequel *Street Fighter II: The World Warrior* completely reinvented the genre and led to countless clones and sequels. Indeed, it's arguable that without the success of *Street Fighter*, we wouldn't have a great many other fighting franchises, such as *Fatal Fury, Art Of Fighting* and even *The King Of Fighters*. SNK, one of Capcom's fiercest competitors, was constantly locking horns with its Japanese rival, always releasing new brawlers that would hopefully draw gamers away from Capcom's own efforts. Capcom responded in kind, painstakingly tweaking existing games or creating new ones to ensure that the fighting scene was vibrant and exciting. Other companies were also desperate to muscle in on the scene, with Midway's *Mortal Kombat* being one of the most successful efforts from a Western developer.

The popular fighting scene soon turned competitive, with players starting with the release of *Street Fighter II* and either sticking with the series or moving over to other franchises like *Tekken*, *SoulCalibur* and the aforementioned *Fatal Fury*. It's a *Street Fighter* game that features one of the most breath-taking tournament moments however and we defy anyone to not become giddy with excitement after watching Daigo Umehara's astonishing string of parries in his dramatic battle against Justin Wong at Evolution 2004.

Street Fighter has had phenomenal success in the last 29 years, and *Street Fighter V* promises to reignite everything that we've loved about the franchise for so many years. Here's hoping it lives up to the challenge.



STREET FIGHTER 1987

ARCADE, VARIOUS

Average is sadly the fairest way to describe Capcom's first competitive fighting game. Taking control of a Japanese martial artist called Ryu, the aim is to travel around the world beating ten progressively tougher opponents, culminating in a battle against current world champion, Sagat. While the game is two-player, you only fight against Ken, Ryu's former training partner. In addition to introducing the special moves and six-button set-up that would become hallmarks of the series, *Street Fighter* is perhaps best remembered for the ridiculous pressure-sensitive pads that appeared on the deluxe cabinet version of the game and constantly broke down.







STREET FIGHTER 2010: THE FINAL FIGHT 1990

NES

This bizarre offshoot was released exclusively for the NES and has you controlling Ken, who has retired from fighting after becoming world champion and now works as a cyborg cop, naturally. Interestingly, this is completely different to the Japanese version of the game where the lead is called Kevin Straker.

Gameplay-wise, *Street Fighter 2010* is a scrolling fighter, and a particularly tough one at that. Even though Ken has a large amount of useful skills, including deadly projectiles, he's at a constant disadvantage due to the sheer ferocity and toughness of his numerous opponents. It's a shame, as the core gameplay is surprisingly entertaining.

STREET FIGHTER II: THE WORLD WARRIOR 1991

ARCADE, VARIOUS

Capcom's follow-up to *Street Fighter* not only improved upon it in every way, but also changed the entire genre. It introduced or refined a staggering number of gameplay mechanics, many of which still feature in the series to this day. Combos (which were created by accident) completely changed matches, creating an engaging flow simply not seen in previous fighting games; bonus stages were added; special moves were greatly refined; and it added eight playable characters, all with distinctive fighting styles.

Ryu and Ken return, and are joined by other distinctive fighters: E.Honda is a huge sumo wrestler, Zangief is a wrestler with devastating grapples, Blanka is an electric man-beast from the jungles of Brazil, Dhalsim is a fire-breathing yoga master from India, etc. The group of eclectic fighters is rounded off with Guile, a former special forces agent and Chun-Li, a Chinese martial artist and one of the earliest female character to appear in a fighting game. In addition to the eight playable characters, four bosses were also included: Sagat returned and was joined by Balrog, a powerful boxer, Spanish matador Vega and new boss M.Bison, the leader of criminal organisation Shadaloo. *Street Fighter II* was a success for Capcom, so much so that it cannibalised many of its other CP System boards to keep up with demand. While it received numerous poor ports on home computers, the SNES port was a huge success, highlighting the power of Nintendo's 16-bit console was.





STREET FIGHTER II: CHAMPION EDITION 1992

ARCADE, VARIOUS

The popularity of *Street Fighter II* saw not only plenty of competitors from rivals, but also updates from Capcom itself. The biggest change to the game was that Sagat, M. Bison, Balrog and Vega were now all playable characters, increasing the roster to 12. Another big change was the introduction of mirror matches, something that hadn't been possible in *The World Warrior*. The previous eight characters were also modified, with Ken and Ryu in particular being tweaked to feel more individual.







STREET FIGHTER II TURBO: HYPER FIGHTING 1992

SYSTEMS: ARCADE, SNES

Capcom's next upgrade was designed to combat the many official hacks like 'Rainbow Edition', which were appearing in arcades. The gameplay has been greatly sped up, which also meant that players had to be more precise when pulling off combos and special moves. All of the original characters, with the exception of Guile, were given new special moves such as Dhalsim's yoga teleport and Chun-Li's mini fireball. The base gameplay was tweaked again, too.

SUPER STREET FIGHTER II: THE NEW CHALLENGERS 1994

ARCADE, VARIOUS

Capcom's next update was a big one, introducing four new characters: Cammy, T.Hawk, Dee Jay and Fei Long. The game itself is a big improvement aesthetically over previous games in the series, due to using the CPS II board, which allowed for all new character animations and vastly improved backdrops. The gameplay was slowed down, and it's also the first *Street Fighter* to keep track of combos, first attacks, reversals and other special attacks.







SUPER STREET FIGHTER II TURBO 1994

SYSTEMS: ARCADE, VARIOUS

The last *Street Fighter II* game is arguably the most refined version and is known as *Street Fighter II X: Grand Master Challenge* in Japan. There's an adjustable speed setting and alternate character versions based on *Super Street Fighter II*. Air combos and super combos both feature, with the latter adding a new gauge to master and the former allowing players to perform juggles. It's also the first game in the series to feature Akuma.



STREET FIGHTER: THE MOVIE 1995

SYSTEMS: ARCADE

This terrible effort was based on the equally terrible 1994 movie. Created by Incredible Technologies, it's the first *Street Fighter* game to feature digitised characters, all of whom are based on the film's stars. It actually features lots of new mechanics, including exclusive special moves, interrupt moves, comeback moves and regeneration moves, but it's let down by the stilted animation, which makes fights feel extremely clunky.

"IT'S ONE OF THE FIRST AND BEST JOYSTICK WAGGLERS FOR HOME COMPUTERS"

STREET FIGHTER ALPHA: WARRIOR'S DREAMS 1995

SYSTEM: ARCADE, VARIOUS

Alpha features a distinctive cartoon style, six previous characters (Ryu, Chun-Li, Ken, Birdie, Adon and Sagat) as well as Rose and Nash and *Final Fight*'s Guy and Sodom. M. Bison is on boss duties, while Akuma and new guy Dan are secret characters. It introduces a revamped Super Combo system, Alpha Counters, two playing styles, chain combos and air blocking and the awesome two-on-one Dramatic Battle mode.





STREET FIGHTER II MOVIE 1995

PLAYSTATION, SATURN

This oddity was released to tie-in with Capcom's animated *Street Fighter II* movie. It's basically a life simulation, but you can enhance your cyborg's ability by studying bits of FMV (taken from the film and made for the game) to enhance attributes. Sadly, it's quite tough to play if you don't understand Japanese.







STREET FIGHTER: THE MOVIE 1995

PLAYSTATION, SATURN

This gets its own entry, as it isn't a conversion of the arcade game, but a standalone product; unlike the arcade game, the console ports were developed by Capcom. Although they use the same digitised characters, the animation is different and slightly better (although still poorer than a standard *Street Fighter* game). The biggest change is in the gameplay, with this version playing more like *Super Street Fighter II Turbo*. However, it adds Super Special Moves into the mix. It features four different gameplay modes: Movie Battle, Street Battle, VS Mode and Trial Mode, meaning it offers more longevity than its arcade counterpart. It's still largely a very disappointing fighter, though, played more today for its comedy value.





STREET FIGHTER ALPHA 2 1996

ARCADE, VARIOUS

In addition to greatly refined combat, *Alpha 2* adds a new Custom Combo system, which replaces the Chain Combo of *Alpha*. It's extremely versatile and can be activated whenever a character's Super Combo Gauge is Lv 1 or higher. Characters now have two Alpha Counters as well as secret rivals that appear if certain conditions are met. Character-wise, it adds Zangief and Dhalsim, Gen, *Final Fight*'s Rolento and Ryu fangirl Sakura, who shares many of his moves.



STREET FIGHTER EX 1996

ARCADE

While it's not perfect, this collaboration between Capcom and Arika does a great job of translating *Street Fighter* to 3D. It features nine new playable characters (Hokuto, D.Dark, Pullum, C. Jack, Skullomania, Blair, Allen, Kairi and Darun) as well as a new boss, Garuda. While utilising a 3D background, it effectively still plays as a 2D fighter, but adds the replays that were popular at the time. The Super Combo Gauge is divided into three levels, and it utilises Cancelling and Super Cancelling to great effect.

PETER ROSAS LOVES STREET FIGHTER II

The Street Fighter V producer on the classic brawler



What are your earliest memories of *Street Fighter II*?

My earliest memory was walking home from elementary school and stopping by the local bowling alley right after they got *Street Fighter II*. I just remember seeing this large crowd of teens huddled around this one machine and wondering what it was they were watching. When I finally got close enough to see the screen, I was blown away by the graphics at the time.

Another exciting memory was when I first saw players landing Guile's sonic boom combos. Seeing his moves cancel into special moves totally changed how I approached other characters, as it showed there was more to the game than I thought.

Why do you think *Street Fighter II* remains so popular with gamers?

I think there are quite a few factors as to why *Street Fighter II* remains so popular to this day. I could go on and on about the various reasons, but instead I will concentrate on two: iconic character design and music.

You have these iconic characters, whose design and fighting styles are caricatures of the country they represent. Although they seem outlandish, I think that in the back of everyone's mind they could actually visualise a one-eyed kickboxer in Thailand, or an enlisted soldier who fights out of the US kicking ass.

Another big reason is definitely the music. Just about every character theme in *Street Fighter II* not only fits the character, but also the stages in which the fighters do battle. The music also helps raise the tension of the battle with the songs speeding up towards the end of each round.

How critical is the music to the series as a whole, then?

I think it's pretty critical to the overall experience of the game, as it can really immerse the player into the game world. When *Street Fighter II* was released, it had amazing visuals, innovative character and battle design - as well as some of the best music ever created for not only fighting games, but games in general.

Who do you consider the best character and why?

I think the best character is Guile. He has great damage output, long range attacks and the best projectile recovery in the game. He also has the coolest combos!

What makes a great competitive fighting game?

The elements that make a good fighting game are accessibility, depth, and balance. Accessibility is important, as you want more people to be able to play the game and actually understand why they're winning or losing. The faster a player can figure out the game system and move on to the competitive aspect of it, the faster they can enjoy what a fighting game is all about.

Depth is important because once players understand the game they'll explore the engine to see what tactics they can devise to defeat opponents. If the gameplay is rigid, it runs the risk of turning off those who aren't able to develop tactics against the ones they're losing to – resulting in them quitting the game.

Lastly, balance is an element that can't be stated enough. Players like to feel that regardless of what character they use, they always have a chance at winning. A properly balanced game allows for that. Some characters may have to work harder than others, but at the end of the day, that work is rewarded with a victory.

STREET FIGHTER ZERO 2 ALPHA 1996

ARCADE



This arcade update was released exclusively in Japan and added EX versions of Chun-Li, Ken, Ryu, Sagat and M. Bison. Move lists were changed, some characters received new moves, while Custom Combos can be activated by pressing a kick and punch button of the same strength. A home port would eventually appear a year later on PlayStation and Saturn as part of the *Street Fighter Collection.*

STREET FIGHTER EX PLUS ALPHA 1997

PLAYSTATION

Alpha is an update of *EX*, released in early 1997. It adds Dhalsim and Sakura to the existing roster and includes a hidden bonus stage where you bust barrels. Gameplay-wise, it includes a few tweaks and enhancements; it adds several game modes, including one where you can simply watch two AI characters fight.





STREET FIGHTER III: THE NEW GENERATION 1997

ARCADE, DREAMCAST

Capcom's follow-up to *Street Fighter II* was an incredibly bold game with stunning animation that introduced nine new characters: Alex, Dudley, twins Yun and Yang, Elena, Ibuki, Oro, Necro, Sean and boss Gill (who's playable in the console port). Only Ken and Ryu return from earlier games. The big change to the gameplay is the ability to parry, which allows you to deflect incoming attacks if timed correctly, and powerful special moves called Super Arts.





STREET FIGHTER III 2ND IMPACT 1997

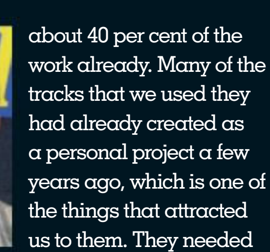
ARCADE, DREAMCAST

Final Fight's Hugo and Urien, who is the brother of Gill were introduced in *2nd Impact*. It also adds Akuma as a secret character, while Yun and Yang now have completely different moves and specials (they were effectively different skins in the first game). EX Specials are added to the roster, while it's now possible to use Tech Throws and character-specific taunts.



RAY JIMENEZ

The Capcom producer talks Super Street Fighter II Turbo HD Remix



Why remake *Super Street Fighter II Turbo*?

Super Turbo was chosen because it has persevered so long. 14 years later and this version of *SFII* is still played in tournaments! I think it shows how great a game it is. Also, I think most gamers (old and new), can identify and have fond memories of the *SFII* games.

Why did the game take so long to arrive?

There were a number of setbacks, but the art creation definitely was the biggest one. What we started with was basically just not going to do the *Street Fighter* franchise justice and felt that it would be better to start over rather than release a game that didn't look its best. In the end, this delay also helped the project because we ended up being able to add more to the game, like a tournament mode and a more refined Remixed mode.

Were you not tempted to redo the animation to match *SFHD*'s?

Absolutely not! Many fans have asked why the animation was not redone, meaning: 'Why didn't we add more frames?' One of the main reasons is that if we added frames of animation, what makes the gameplay of *Super Turbo* so unique would change. Part of the reason *SFII* feels like *SFII* and no other game does is the timing of all the moves and frames. Adding any frames of animation will change all that and the goal was to bring *Super Turbo* to the present, not totally change it.

The second, and probably more limiting reason, is that it's technically not possible. Minus the tweaks we put into the Remixed mode, we're basically using the same code as the original game. This doesn't allow the changing of the art callouts to include frames that weren't there before.

The remixed music is excellent, how long did it take to create?

One of the great parts about that is that the OC ReMix guys had done about 40 per cent of the work already. Many of the tracks that we used they had already created as a personal project a few years ago, which is one of the things that attracted us to them. They needed some tweaking to be game ready, but the tracks were there already. The other 60 per cent I would say took about another six months to create.

Playing *HD Remix* online is like being back in the arcades. Was this your intention?

Online play was one of the main features because we wanted to bring back that arcade feeling. It's something that's lost now, but if we could pull off a good online experience, we knew that we would be bringing some of that magic back to a new generation of gamers.

Why do you think this series of games remains so popular?

As a fighting game, I think *Street Fighter* still remains because of its gameplay and its characters. Even though other fighting games use similar execution of moves, they still didn't capture the gameplay that *Street Fighter* had. It's a very esoteric and intangible item and shows how genius the original designers were in making *Street Fighter.*

The other factor is the characters. Look at how many people love and know the characters despite not being good at the game. Each character fills an archetype role in the series and their design is simple yet effective. There's a very intangible quality of why characters like Ryu are so penetrating, despite simply being a man in a gi.

How would you like *Street Fighter HD Remix* to be remembered?

Simply as a worthy addition to the pantheon of *SFII* games. Graphics get better every day, but it's gameplay that perseveres. If fans are still playing *HD Remix* as much as they're playing any of the other *SFII* games in the years to come, then we've done our job.

STREET FIGHTER EX2 1998

ARCADE

The biggest change to Capcom's 3D sequel was the Excel Combos, which allow characters to pull off various special and basic moves for a set amount of time. It otherwise builds on the mechanics of the original, but adds Super Cancelling and Guard Breaks. Several characters are added, including Blanka, Vega, along with newcomers Hayate and Sharon. It also adds three new hidden characters.





STREET FIGHTER ALPHA 3 1998

VARIOUS

Alpha 3 introduced new fighting styles called Isms. A-Ism is based on the three-level combo system of the original *Alpha*, X-Ism is based on *Super Street Fighter II Turbo* while V-Ism is similar to *Alpha 2*'s Custom Combos. It also adds a huge load of additional characters, including newcomers R. Mika, Karin, Juni and Juli and *Final Fight*'s Cody.

STREET FIGHTER III: 3RD STRIKE 1999

VARIOUS

This is easily the best 2D fight. It adds Chun-Li, Q, Remy, Twelve and Makoto, changes a bunch of commands for leap attacks, throws/holds and air parries and introduces Guard Parries that turn a character red when it's performed. This instalment brought a choice of two opponents in single-player mode, all the previous returning characters got new levels and endings, while a new Judgement System awarded points based on offence, defence, special techniques and other requirements.



STREET FIGHTER EX3 2000

PLAYSTATION 2

The third EX game swapped out Guard Breaks for the Surprise Blow, lets you call in a tag partner using Critical Parade and introduces Momentary Combos (allowing one special attack to follow another). While several older characters are added, Ace is the only new playable character. Released as a launch game for the PS2, it's widely considered the weakest game in the series.







HYPER STREET FIGHTER II: THE ANNIVERSARY EDITION 2003

ARCADE, PS2, XBOX

This was designed to celebrate the 15th anniversary of the Street Fighter series. Upon starting the game, players are presented with five different *Street Fighter II* variants. Normal is the original game, utilising all eight world warriors, Champ adds the four bosses, Turbo is basically *Street Fighter II Turbo: Hyper Fighting*, Super adds Cammy, Fei-Long Dee Jay and T-Hawk, while Super T adds Akuma and is basically *Super Street Fighter II Turbo*. Due to each version copying the original arcade outing there are an impressive 65 character variations. Released separately in Japan and Europe on PS2, it was sold in the U.S. as *Street Fighter Anniversary Collection*, where it was also paired with *Street Fighter III: 3rd Strike*. The compilation was also released on Microsoft's Xbox and the game was also ported to arcades.

"CAPCOM'S FOLLOW-UP TO STREET FIGHTER II WAS A BOLD GAME WITH STUNNING ANIMATION





STREET FIGHTER ALPHA 3 MAX 2006

PSP

This excellent PSP port features minimal loading times and a new game mode called 100 Kumite. It also adds Eagle, Maki and Yun who had all appeared in the GBA port, *Street Fighter Alpha 3 Upper*, and adds Ingrid, who was last seen in *Capcom Fighting Evolution*. It's nigh on identical to the arcade original, boasting all the animation frames and sprites.

SUPER STREET FIGHTER II TURBO HD REMIX 2008

PSN, XBLA

This excellent digital release is effectively the seventh iteration of Capcom's popular fighter. In addition to being a perfect port, *Super Street Fighter II Turbo* also includes an HD Mode which features stunning new visuals by UDON Entertainment. There are also excellent new remixes courtesy of OverClocked Remix. Of note is Quarter Match Mode that lets you spectate and join online matches.





STREET FIGHTER IV 2008

ARCADE

After it let the series lie dormant for nine years, Capcom teamed up with Dimps to unleash a killer sequel. Overseen by Yoshinori Ono and based on *Street Fighter II,* its big new mechanic is Focus Attacks, which allow a character to absorb an attack and launch a counterattack. It also introduces insane over-the-top Ultra Moves and adds the Revenge Gauge, which fills up as you receive damage. In addition to 13 returning characters it adds Abel, Crimson Viper, El Fuerte, Gouken, Rufus and boss Seth.



SUPER STREET FIGHTER II TURBO PINBALL FX 2008

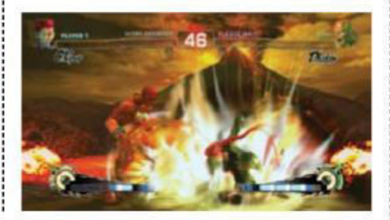
2008

This smart take on the pinball genre was a piece of DLC available for Pinball FX. It's based on Super Street Fighter II Turbo and is filled with lots of loving tributes, including characters and music samples. The table itself is fairly challenging with some great ramps and a variety of challenges based on the game.

STREET FIGHTER IV 2010

PS3, XBOX 360, PC

Two years after its arcade release, Capcom ported the game to home systems. It added online play, six new characters (Cammy, Gen, Rose, Sakura, Dan and Fei Long) a new challenge mode and a different opening cinematic. The PC version features three distinct visual styles, Watercolour, Posterize and Ink and is deemed the definitive version by Capcom.



SUPER STREET FIGHTER IV 2010

PS3, XBOX 360

Capcom released *SSFIV* as a standalone title, but at a suitably lower price. It features a number of new online modes, including Team Battle and Endless Battle and tweaked gameplay. It also adds two new fighters, Juri and Hakan, along with Dee Jay, T. Hawk, Dudley, Ibuki, Makoto, Cody, Guy and Adon for a total of 35 fighters.







SUPER STREET FIGHTER IV: ARCADE EDITION 2010

ARCADE, VARIOUS

The success of *Street Fighter IV* saw Capcom overhaul the game yet again. Originally planned as an arcade upgrade, it was eventually released on home systems in 2011. Capcom once again refined the game, tweaking the abilities of each character while giving some completely new EX Moves. Like the earlier *Street Fighter II* upgrades it made all the characters feel fresh and exciting again. Character wise, it adds twins Yun and Yang, along with Evil Ryu and Oni.



SUPER STREET FIGHTER IV: 3D EDITION 2011

3DS



Although none of the background levels are animated, this is still a fantastic port. The touchscreen can be used to pull off special moves for those not well versed in the game, and it features all 35 characters found in the home console versions. Cool new features include a fantastic looking (but incredibly ineffective) over-the-shoulder view and the ability to collect and trade cool figurines via Street Pass.





STREET FIGHTER IV VOLT 2011

IOS

Street Fighter IV had already been ported to iOS but *Volt* was a significant upgrade. In addition to introducing three characters (Cody, Balrog and Vega) it also added online play via Wifi. Matches are far more stable than they were and the addition of Wandering Warrior is a nice touch, but this is still a weak version.

AND THE REST

Here are the few spin-offs and updates we couldn't fit in, as well as the Vs series, featuring various Street Fighter characters

- X-MEN VS. STREET FIGHTER (1996)
- SUPER PUZZLE FIGHTER II TURBO (1996)
- MARVEL SUPER HEROES VS. STREET FIGHTER (1997)
- SUPER GEM FIGHTER MINI MIX (1997)
- STREET FIGHTER EX PLUS (1997)
- MARVEL VS CAPCOM: CLASH OF SUPER HEROES (1998)
- STREET FIGHTER EX 2 PLUS (1999)
- SNK VS. CAPCOM: MATCH OF THE MILLENNIUM (1999)
- SNK VS. CAPCOM CARD FIGHTERS CLASH: CAPCOM VERSION (1999)
- SNK VS. CAPCOM CARD FIGHTERS CLASH: SNK VERSION (1999)
- MARVEL VS CAPCOM 2: NEW AGE OF HEROES (2000)
- CAPCOM VS. SNK: MILLENNIUM FIGHT 2000 (2000)
- CAPCOM VS. SNK PRO (2000)
- CAPCOM VS. SNK 2: MARK OF THE MILLENNIUM 2001 (2001)
- STREET FIGHTER II TURBO REVIVAL (2001)
- SNK VS. CAPCOM: CARD FIGHTERS 2 EXPAND EDITION (2001)
- CAPCOM VS SNK 2 EO (2002)
- STREET FIGHTER ALPHA 3 UPPER (2002)
- SNK VS. CAPCOM: SVC CHAOS (2003)
- CAPCOM FIGHTING JAM (2004)
- NAMCO X CAPCOM (2005)
- SNK VS. CAPCOM CARD FIGHTERS DS (2006)
- SUPER PUZZLE FIGHTER II TURBO HD REMIX (2007)
- TATSUNOKO VS. CAPCOM: ULTIMATE ALL STARS (2008)
- STREET FIGHTER ONLINE: PUZZLE GENERATION (2008)
- TATSUNOKO VS. CAPCOM: CROSS GENERATION OF HEROES (2008)
- MARVEL VS CAPCOM 3: FATE OF TWO WORLDS (2011)
- ULTIMATE MARVEL VS CAPCOM 3: (2011)
- STREET FIGHTER: PUZZLE SPIRITS (2015)

STREET FIGHTER III: 3RD STRIKE ONLINE EDITION 2011

PSN, XBLA

Iron Galaxies' port of *3rd Strike* is superb. Effectively an update of the PS2 port, it adds a large number of graphical changes (including a rubbish HD mode) as well as new remixed soundtracks by Simon Viklund. As its name suggests, most of the changes were made to its new online mode, including Tournament and Trial modes and a cool Spectator mode. It's also possible to share replays on YouTube. Many consider it the best version of the game.

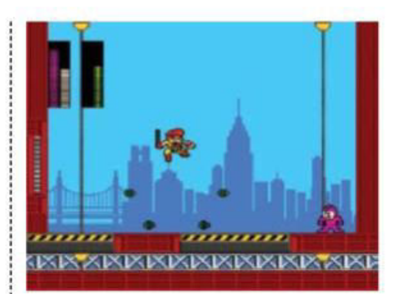


STREET FIGHTER X TEKKEN 2012

VARIOUS

This fun tag-team fighter combines the best bits of the two rival franchises. Its biggest addition is the Cross Gauge which can be used to pull off various moves depending on how much of the three-sectioned meter is filled up. Other new mechanics include the Gem System and Pandora mode, which can boost the remaining fighter when activated.





STREET FIGHTER X MEGA MAN 2012

PC

This curio started off life as a fan project, until Capcom stepped in to support it officially. Designed to celebrate the anniversaries of both *Mega Man* and *Street Fighter*, it's predominantly a *Mega Man* game with classic *Street Fighter* heroes acting as bosses and using their traditional special moves. It was given away for free on PC.

ULTRA STREET FIGHTER IV 2014

ARCADE, VARIOUS



This was based on fan feedback and announced at the 2013 Evolution Championship Series. It adds Elena, Hugo, Poison and Rolento who all appeared in *Street Fighter X Tekken*, as well as newcomer Decapre. Gameplay-wise, it adds Red Focus and a delayed Wakeup technique and abolishes most unblockable setups.

STREET FIGHTER V 2016



PS4, PC

This is shaping up to be something special indeed. Newcomers Necalli, Rashid, Laura and F.A.N.G. fit into the roster nicely, while characters like Ken and Dhalsim have been greatly overhauled, both mechanically and stylistically. Mechanically it introduces the V-Gauge, which builds up to three different techniques: V-Triggers, V-Skills and V-Reversals. This addition dramatically refreshes the gameplay.





GAME CHANGERS PAC-MAN

Released: May 22, 1980 (Japan) / October 1980 (WW) **Publisher:** Namco **Developer:** Namco (Japan) / Midway (WW) **System:** Arcade



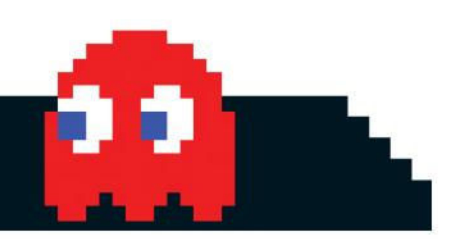
Pac-Man cabinets had made more profit than the entire *Star Wars* trilogy by the end of the Eighties – with over $1 billion in quarters collected.

Pac-Man was gaming's first mascot, and the first game a *lot* of people played. It introduced many in the UK and the US to gaming as a form of entertainment, but what you might not know is it also did much more…

PAC-MAN IS NOT only synonymous with videogames as a medium, but was also one of the most popular iconic figures of the Eighties *as a decade*. That's how widespread this little yellow circle's influence has been: it wasn't just an experience limited to arcades and the relatively rare gaming enthusiast of the Eighties, no: *Pac-Man* was a social phenomenon… how many other videogames characters have also had a top ten single, an animated TV series and sold over $1 million worth of merchandise in the same financial year they were conceived? The answer is none… well, none other than this little yellow blob.

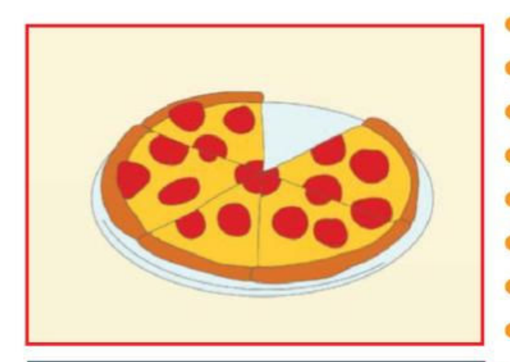
But *Pac-Man* wasn't this popular to begin with – in fact, the little puck-shaped pill-muncher didn't really make any waves in Japan when the cabinets were first shipped into arcades. It wouldn't be until five months later – when *Pac-Man* hit American shores – that *Pac-Man*'s reign of popularity would really begin. Arriving in the US in October 1980, it took only a couple of months for the game's simple yet addictive gameplay to infect arcades up and down the country, shifting over 400,000 units by 1982. Part of the success here was down to Midway – who distributed the game in the US – deciding to lower the game speed and difficulty of the game to appeal to a Western audience. This was clearly a successful move, because that's when *Pac-Man* took off.

Pac-Man, even in its day, was primitive: it didn't have the most incredible graphics you've ever seen, its chip-based music was one step above



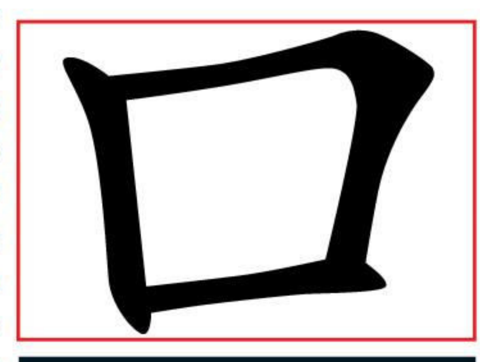
THE ANATOMY OF PAC-MAN

PAC-MAN MAY WELL BE GAMING'S MOST NOTABLE ICON… BUT WHAT INSPIRED THE CREATION OF THAT LITTLE YELLOW CIRCLE ALL THOSE YEARS AGO?



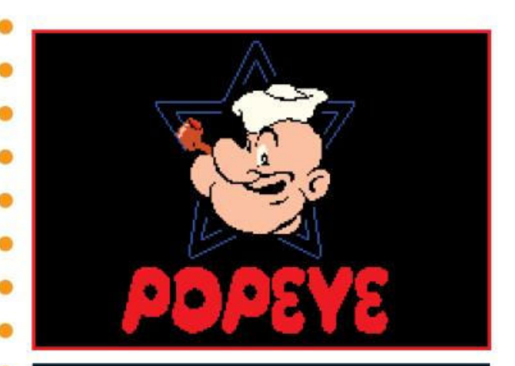
PIZZA

★ Iwatani has famously stated that *Pac-Man*'s shape was inspired by a pizza missing a slice… but that's only half true as something else was also involved…



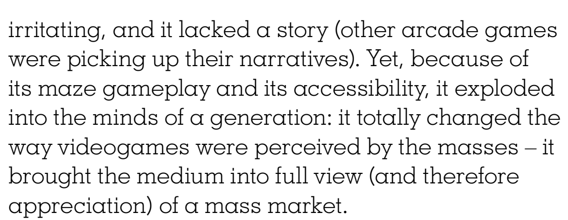
JAPANESE LANGUAGE

★ The rest of the story is that *Pac-Man* was initially inspired by Iwatani simplifying and rounding off the Japanese symbol for mouth: 'kuchi'.



POPEYE

★ Toru Iwatani confirmed that the idea of eating things to make *Pac-Man* strong came to him directly after watching *Popeye* cartoons during development.



irritating, and it lacked a story (other arcade games were picking up their narratives). Yet, because of its maze gameplay and its accessibility, it exploded into the minds of a generation: it totally changed the way videogames were perceived by the masses – it brought the medium into full view (and therefore appreciation) of a mass market.

Pac-Man was family-friendly, too: the mascot gaming needed to encourage more people to get involved with electronic play. There were no guns, no blood, no silliness – just a yellow circle, some collectibles and some ghosts. It broke through social and gender boundaries and put gaming on the right track to becoming a socially acceptable form of entertainment – not just a niche hobbyist pursuit. That was creator Toru Iwatani's intention, too: he wanted to attract women to the arcade because he noted there was a lack of a female presence there, and he wanted games to be enjoyed by everyone, not just teenage boys.

The only other game to achieve an even similar level of cultural intrusion at this point was *Space Invaders* – but even the appeal of the Atari classic was dwarfed by how widespread *Pac-Man* became. There was a trick to this: *Pac-Man* hit upon something latent in people's minds, something that took advantage of a person's desire not to be beaten: it was the perfect arcade game. It was the beginning of the 'just one more go' mentality, and even though it was on a pay-per-play machine, *Pac-Man* successfully continued to draw customers. Irrespective of the technology you ship on, a game that can consistently keep you playing like that is going to continually draw new players.

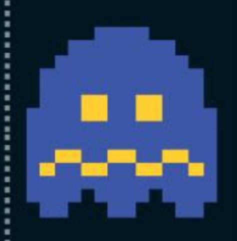
THE MASCOT GAMING NEEDED TO ENCOURAGE MORE PEOPLE TO GET INVOLVED WITH ELECTRONIC PLAY

KEY FACTS

■ The original *Pac-Man* arcade game was written in only 24kb of data – smaller than a thumbnail .JPEG

■ *Pac-Man* was originally called *Puck-Man* in Japan, but Midway changed that in the US due to fears of 'obscenity'

■ *Pac-Man* took one year (1979) to make, and only used the expertise of a nine-man team under direction from Toru Iwatani



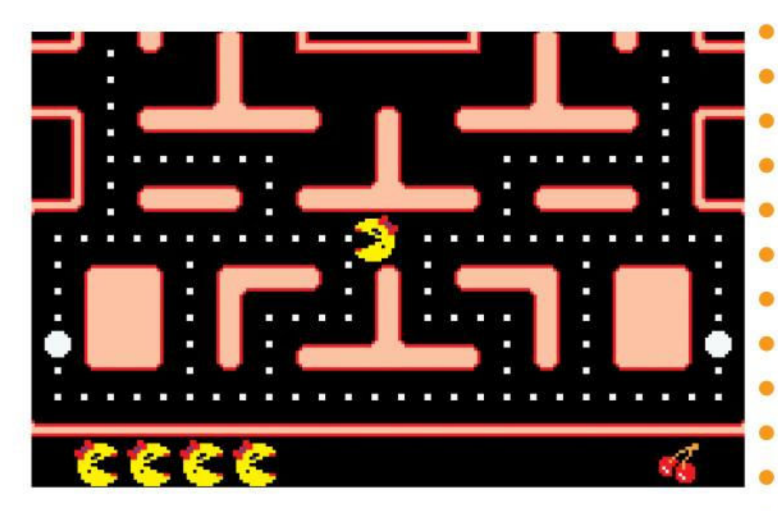
■■■ The surprising thing about *Pac-Man* is that, despite the icon's name being plastered all over the machines and even etymologically linked to the actual term for *Pac-Man* obsession (Pac-Mania), he wasn't really the star of the show. The reason the game endured was because of the seemingly random nature of the ghosts that acted as your antagonists: Inky, Blinky, Pinky and, um, Clyde. Each ghost had independent behaviour that – in a sense – even gave them pseudo-personalities. In Japanese, in fact, the characters were named after their AI traits – Chaser, Ambusher, Fickle, and (our personal favourite) Feigning Ignorance, sometimes translated as Stupid.

Two years after its release, roughly 2 billion coins had been passed through *Pac-Man* machines, and *Pac-Man* merchandise in the US had exceeded $1 billion in profits. There were an estimated 30 million active players of the game across the US, too – games even nowadays struggle to hit those numbers worldwide. So between establishing the maze game genre, demonstrating the power of a 'character' in videogames, becoming gaming's first mascot and even actively welcoming women into the traditionally male-dominated arcades, it's safe to say that *Pac-Man* is possibly one of the most influential games of all time.

GAME CHANGERS

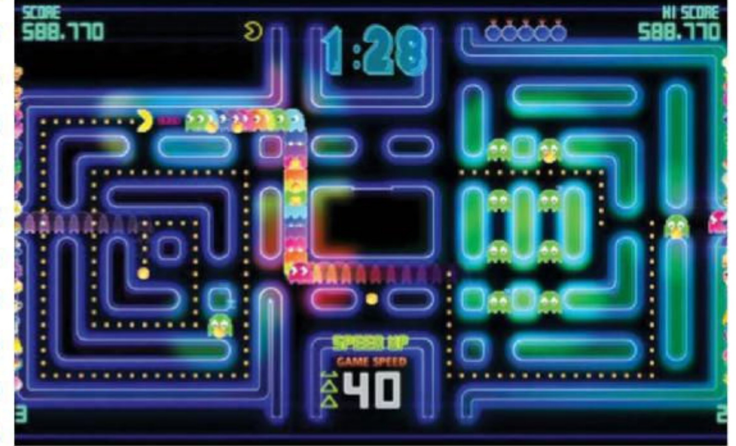
THE 8 BEST PAC-MAN SPIN-OFFS

PAC-MAN WAS NOT ONLY THE FIRST GREAT GAMING ICON, BUT ALSO THE FIRST CHARACTER TO BE UNCEREMONIOUSLY MILKED FOR ALL IT WAS WORTH… MOST WERE DISASTROUS, BUT HERE ARE THE EIGHT BEST PAC-MAN EXPERIMENTS



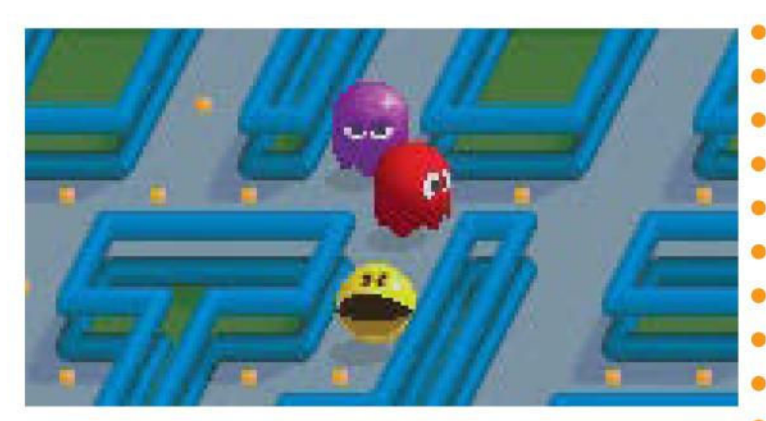
MS. PAC-MAN (1981)

JUST ONE YEAR after *Pac-Man*'s release, an unofficial 'kit' for it was made by General Computer Corporation called *Crazy Otto*. The studio showed its game to Midway, and the publisher commissioned it, changing the sprites to make them more like *Pac-Man*. Midway didn't actually own the rights to *Pac-Man* though.



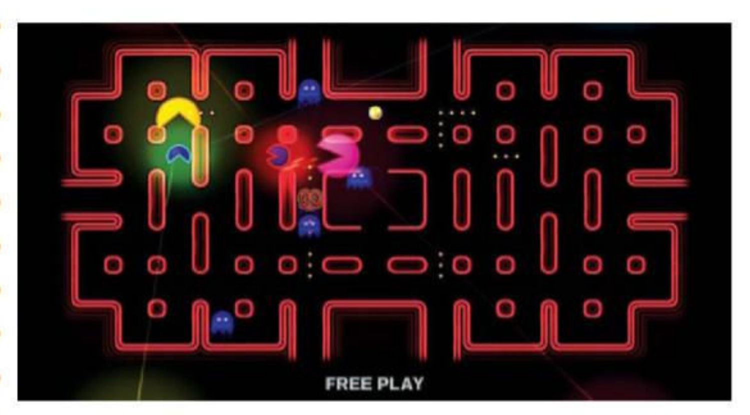
PAC-MAN CHAMPIONSHIP EDITION (2007)

THE GAME THAT attracted Toru Iwatani back to Namco to create another *Pac-Man* – it's a much faster version of the game everybody knows, and alters the maze slightly so it has two distinct halves. It was designed around high-score chasing.



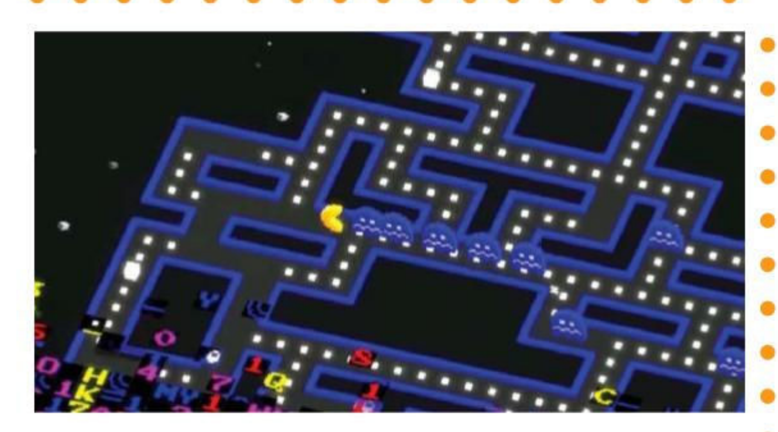
PAC-MANIA (1987)

■ THIS WAS THE first real sidestep the series took from the top-down maze genre. As with many games of the time, *Pac-Mania* opted for an isometric angle and introduced two new ghosts to make things more complicated. Pac-Man also gained the ability to jump, made more interesting when the two new enemies learn to jump too.



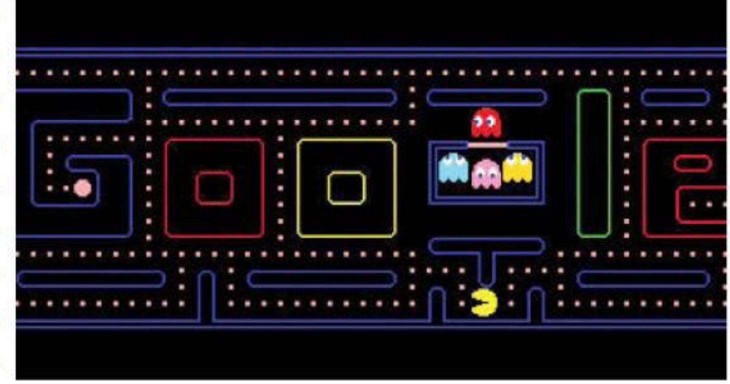
PAC-MAN BATTLE ROYALE (2011)

■ DEBUTING IN ARCADES and hitting iOS and Android shortly after, *Battle Royale* was designed to commemorate the series' 30th anniversary – while this could have been (another) cynical cash-in, it actually proved to be one of the better ideas in the series. The four-player PvP in the game was frantic.



PAC-MAN 256 (2015)

■ WEIRDLY, THIS IS a game based on a glitch – the original *Pac-Man* game would go 'split-screen' when you completed level 255 (caused by the 8-bit processers being unable to deal with a number greater than 255). This game uses that glitch effect to chew up the stage as you go, turning it into an endless runner.



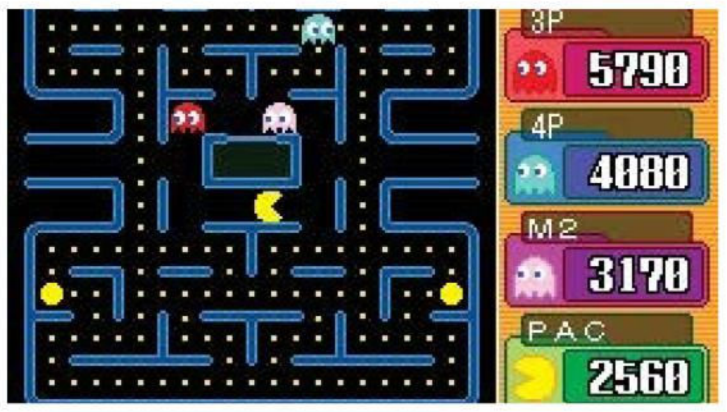
GOOGLE'S PAC-MAN BANNER (2010)

■ FOR THE 30TH anniversary of *Pac-Man*, Google famously changed its homepage into a playable version of *Pac-Man*, the letters forming the maze blocks of the level. The game had a secret bonus too: you could do two-player with Ms. Pac-Man if you threw in another coin! That's a dedicated doodle.



PAC-MAN ARRANGEMENT (1996)

■ THIS WAS ACTUALLY Pac-Man's first return to the arcade in nine years. As with most *Pac-Man* reboots, this one introduced a new ghost too, but this one was a little… different. Called Kinky, this ghost would combine with others to grant them new powers and forms. Pac-Man himself also gained the ability to speed boost.



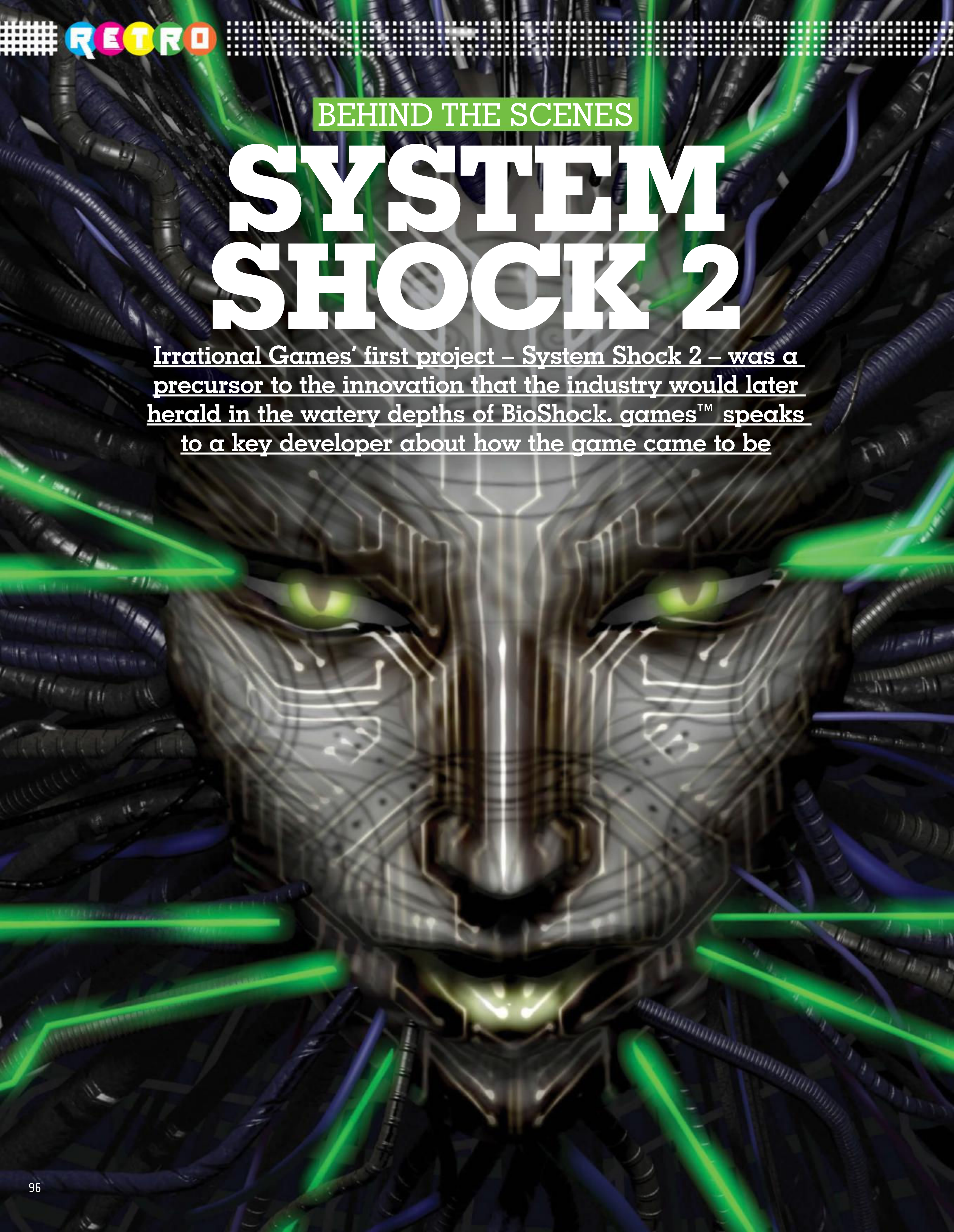
PAC-MAN VS. (2003)

■ THIS INTRIGUING LITTLE game was created by none other than Shigeru Miyamoto – of *Mario* fame – and was a multiplayer title designed to take full advantage of the GameBoy Advance's system link cable. The GBA player would control Pac-Man, and then four other players on the GameCube could control the ghosts.

BEHIND THE SCENES

SYSTEM SHOCK 2

Irrational Games' first project – System Shock 2 – was a precursor to the innovation that the industry would later herald in the watery depths of BioShock. games™ speaks to a key developer about how the game came to be





Released: 1999
Format: PC
Publisher: Electronic Arts
Key Staff: Ken Levine (lead designer), Jonathan Chey (project manager/programmer), Rob Fermier (lead programmer), Josh Randall (composer/producer)

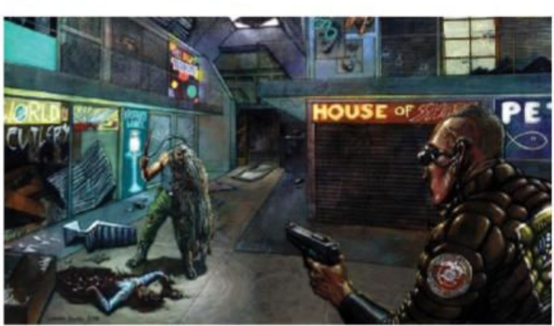
■ Original designs for the game show some interesting influences.

FOR ALL THE love that *BioShock* receives these days, it's easy to forget there was another title released years earlier that first introduced many of the elements that made the words 'Rapture', 'Andrew Ryan' and 'Would you kindly?' some of the most powerful in the industry today. *System Shock 2* implemented that careful blend of RPG and FPS that *BioShock* so often gets credited for, simply by virtue of *System Shock 2*'s relative insignificance upon its release – it'd be remiss to point out that the title didn't do particularly well at retail, despite the high praise it received from critics. But there's an interesting story hidden within the game's development; for Irrational Games – a recognisable name, despite its recent closure following *Bioshock Infinite* – *System Shock 2* was its first project, its chance to prove to the world who this small team of ex-Looking Glass members were and what they could do given the right setting and the freedom to craft a narrative.

"The three founders of Irrational were myself, Ken Levine and Rob Fermier," says Jonathan Chey, project manager on *System Shock 2*. "We all originally worked at Looking Glass. We worked on the same project together and that's how we met, and when we were there we kind of got to know each other. After we had left we decided to get together to try and start our own business, which became Irrational Games." For the first few months of its inception, Irrational Games began work on another project elsewhere before, as Chey explains, it was "yanked out from underneath us." He adds: "We had no income stream, we hadn't shipped anything and it was just three of us working out of our bedrooms."

A lucky result, then, that a discussion with Looking Glass – the team's previous employer – had come about. "They [Looking Glass] had picked up a deal with EA to develop three games, one of which went on to become the first game in the *Thief* series and one of which was a flight simulator that became known as *Flight Combat*. The third obviously went on to become *System Shock 2*. They didn't really have the resources to do it internally so we discussed it and eventually that became *System Shock 2* in a kind of roundabout process." But this title wasn't planned to be a sequel, the contract with EA simply stating that it would be a sci-fi game of some form.


■ There were a couple of extra mini-games – such as this *Minesweeper* clone – that could be played on your PDA, for some reason.



OTHER SHOOTERS WERE VERY ACTION ORIENTATED AND WE WANTED TO MAKE A MUCH DEEPER, MORE ENGROSSING GAME

"When it was originally being discussed it had a name attached to it," says Chey, "which was 'Junction Point'. Some work had been done on it by Looking Glass's Austin Texas studio, which was being run by Warren Spector. Then I think they decided that maybe they wanted to leave and start their own studio, and went on to produce the first *Deus Ex* game." Looking Glass co-opted the efforts of Irrational Games, believing the team would work on *Junction Point*. "I remember seeing some design documents or something like that," says Chey, adding that though little work had been done, there were some elements to it already. "I think it involved some sort of hub – the junction point – where you went on various missions," says Chey, "but we liked the idea of doing a *System Shock* sequel so we put together a pitch for that and got Looking Glass interested in it."

Though the original *System Shock* hadn't sold especially well – which EA had published and owned the rights to – it still offered an element of innovation within the FPS genre. It utilised sprites and featured no mouselook controls – akin to the likes of *Doom* at the time – but still created a simulated world with unique, if fiddly, control schemes to allow for crouching and leaning. Irrational Games wanted to really focus on the RPG elements with the sequel, and bring the idea of player choice to the fore. "In some ways we felt like it was continuing on not just from *System Shock*," says Chey, "but also from the *Ultima Underworld* games, which Looking Glass worked on as well." This would be



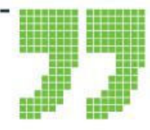
■ Environmental storytelling was something that even then Irrational Games had a particular fondness for.

There were a lot of scenes like this that would really add to the sense of destruction that had been inflicted on the Von Braun.

WHAT THEY SAID...

I didn't want to see what horrors awaited me on the other side [of a door]. To me, that sort of vested emotional interest is any computer game's greatest ambition, and System Shock 2 achieves it in style.

PC Gamer, 1999



the central pillar around which *System Shock 2* was built, giving it a much deeper level of play than the typical FPS was offering. "This was around the time that the original *Half-Life* was being developed and a lot of the other players in the shooter space were very action orientated, and we wanted to try to make a much deeper, more engrossing game. We didn't have an enormous budget but role-playing systems were generally cheaper to develop than doing really, really complicated simulations."

Of course, much of those simulation elements from the original *System Shock* carried over, but not entirely because of the game's heritage. Looking Glass was in the midst of developing *Thief*, and alongside it the Dark Engine; Irrational Games was given access to this engine to develop *System Shock 2*, and by virtue of the software's features, much of the simulation elements were able to be easily included. "We knew that technology was going to be available so we decided then that we were going to take advantage of it," Chey explains. "So the *System Shock* monsters walk around the level, they can hear sounds, they have vision cones so you can sneak up behind them, if they think they see you they'll search around for you… so all that stuff kind of came out of the AI that had been developed for *Thief*." Chey adds that the engine's systems and features were all tuned to "provide a different experience," enabling a more combat-oriented game than the stealth-heavy *Thief*. "We wanted a game where there were opportunities to optimise your combat situation rather than just running in and blasting everything – which was kind of standard at the time," says Chey, highlighting just how different *System Shock 2* was intended to be.

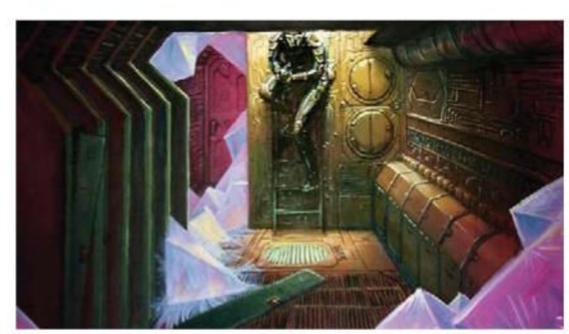
IT CAN BE QUITE SCARY WORKING IN AN AREA WHERE THERE AREN'T ANY SUCCESS STORIES

"It can be quite scary working in an area where there aren't any success stories," Chey says of the challenge of approach something in a totally new way. "You can't say, 'this is going to be like *Unreal*, only better.' That's actually a very difficult thing to do. I think it's mistake that a lot of developers make – you know, it's very hard to dislodge someone that is very dominant in a particular genre." Chey adds that working in an "unexplored part of the space" is especially difficult for a number of reasons. "You don't have a lot of examples to draw from on how it should be done," he says, "but then there's always a worry that maybe the space is unexplored because maybe people don't actually want to play a game like this. So



At the start of the game you would make a series of choices that would affect your initial skill set up, but once you started playing, you could adapt however you chose.

■ The character models weren't especially detailed, even for the time, but that didn't stop these guys imparting a sense of dread.



we didn't really know that." Despite all the ambition, however, Irrational Games still wanted to make a game that was beholden to the original, one that was at once in keeping with the strengths that Looking Glass had created prior but modernised. The gap between the two games – five years by the time the sequel released – was large enough that huge strides in technology, and therefore videogames, gave the team an objective list of improvements that needed to be made.

"We knew there were things we liked about it and there were things we were less keen on," Chey tells us. "I think there had been some major innovations in the first-person shooter genre since the first game shipped. For example, the original game didn't have mouselook. You would steer your character around with the keyboard and you would move the aiming reticle on the screen with the mouse."

Chey adds that Looking Glass had been "very keen" on the inclusion of leaning as a thing you could do in a first-person shooter: "You could lean and duck [in the original] and you did that with the little image of character in top right of the screen with a bunch of nine different divisions and you'd click on them to control angle. It was kind of clumsy, because it was early days. So we kind of wanted to bring the game up to speed, with how first-person shooters were controlled." The team, with the new Dark Engine, was also able to modernise the visuals; in fact, it was a necessity if it was to match its contemporaries at all.

"But then there were just things that were in the original game that we just thought were really cool and that we should keep them, but we had to find out a way to best implement them." As a particular example Chey drew attention to the original game's freedom to backtrack through the environments, a facet that was also implemented into *System Shock 2* and, later, *BioShock*. "That was a huge part of the original *System Shock*, and we continued that so there was an elevator and you can go back to different levels if you want to and pick up an object you couldn't get on your first time through. We wanted to keep things like that to see whether we could improve them, I guess."

BEFORE BIOSHOCK

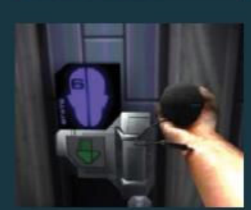
The ways in which System Shock 2's DNA runs throughout Irrational's greatest game



AUDIO LOGS

Perhaps one of the key things that *BioShock* is praised for is through its collectable audio logs, whereby much of the detail of the world and its characters are revealed. *System Shock 2* did this first.



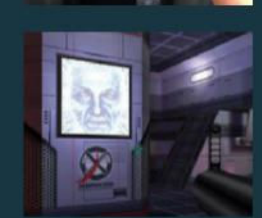


'MAGICAL' ABILITIES



Though one game calls it 'psi abilities' and the other 'ADAM', the two are interchangeable. Both let you unlock powerful and unique abilities to aid in combat and exploration.





PERVASIVE ANTAGONIST



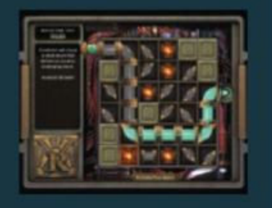
Though *BioShock*'s revelation changes who the antagonist is, both games feature a character that you interact with throughout the game – and both end up using the player's trust against them.





HACKING MINI-GAME

It might not be the feature that people are most fond of, but both games feature a mini-game (which is affected by your skills) to hack machines. *System Shock 2*'s is a little less bothersome, truth be told.





VENDING MACHINES

While the cackling clown of the Circus of Values might be a little more prominent in the memory, both games featured machines where ammo and upgrades could be bought.

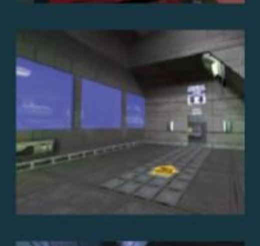




RESPAWN POINTS

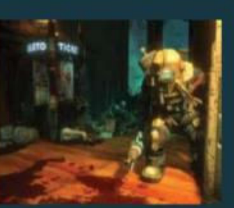
Quantum Bio-Reconstruction Machines and Vita-Chambers offer the exact same functionality – to bring a 'stored' person back to life – though *System Shock 2*'s requires a minute cost to activate the resurrection.





BACKTRACKING

The ability to return to previous areas to explore and perhaps collect items you missed the first time through was an important feature for Irrational, though in *BioShock* it plays a more important role thanks to the significance of the Little Sisters.





HORROR ELEMENTS

While not explicitly horror games, both games utilise horror elements – carefully placed lighting and audio cues and a weaker player character – to enhance the tense atmosphere of the game.





You'd encounter a range of enemy types throughout the game, from psychic monkeys to robotic sentries.

This all tied into the freedom of choice that *System Shock 2* was to impart onto the player, an idea that was – for the most part – hugely novel for the first-person genre. The RPG mechanics meant that from the outset a player could decide not only where to go and when, but also how to fight and what skills to improve. Would you become a hacker intent on bypassing enemies through locked routes? A gun-wielder hoping to take the fight directly to the monsters of the Von Braun? Or would you utilise the numerous psychic abilities to gain an advantage in the fight?

"I mean, that created a lot of mind-bending problems when the player is not locked onto a path," says Chey of the game's freedom. "It's obviously harder to do than scripted events like in modern shooters, which are very highly reliant on scripted set-pieces – like, maybe you walk into a room and a helicopter comes in and shoots rockets at you and a tank comes in and explodes, you know, all that kind of stuff. It's all scripted, set-piece kind of stuff. That's obviously much harder to do in a game where you don't know which door the player is going to walk into the room through. We had a couple of set-pieces, but most of our attention was on building a bunch of missions that could be done… not in an arbitrary order, but certainly there were different permutations that they could be done in, and that added work to the project."

Despite the gameplay improvements that Irrational Games wanted to bring to *System Shock 2*, however, there was a single, core idea that the team had decided was important to work with. It wasn't anything to do with the original's systems or its simulation, but instead its story – more specifically, its lead antagonist: SHODAN. "We had different objectives, but of course the goal was to pick up on the most interesting things in the original story and the narrative – which we thought was SHODAN, your antagonist who we thought was a great character." But SHODAN was implemented as so much more than just a character to deepen, but instead an aspect of the gameplay itself.

"One of the things that we really liked about SHODAN was that, unlike a lot of game villains who just appear in a couple of cutscenes and there's an end of level boss fight, you kind of feel you have a relationship with SHODAN that develops during the course of the game, and you get to know her and she interacts with you. One of our favourite things from the original game was how SHODAN would talk to you and threaten you and something would actually happen as a result of that." To build further on this aspect, Irrational implemented

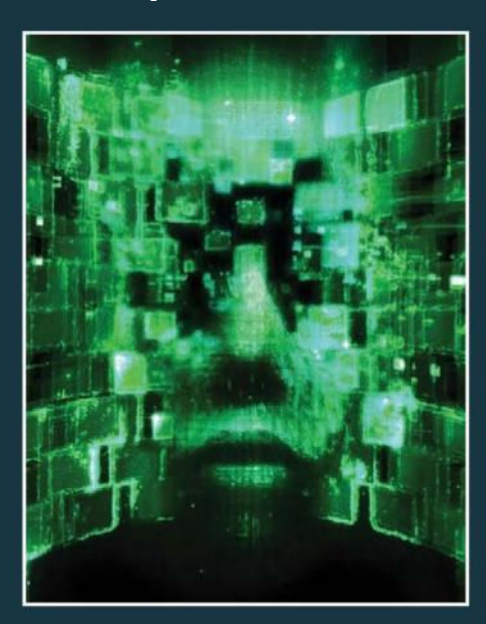
THERE WAS NO POINT WHEN I WAS WORKING ON IT WHEN I THOUGHT 'OH YEAH THIS IS GOING TO BE FANTASTIC'



SHODAN LIVES ON

A surprising announcement of a third game in the series

IT HAS BEEN 16 years since *System Shock 2* launched, and aside from a re-release on Good Old Games (and later other platforms) and an enhanced version of the original, there was no concrete evidence that we'd ever see another entry into the franchise. Until now. OtherSide Entertainment – coming out of nowhere – has unveiled that *System Shock 3* is in development. The developer is formed of many ex-employees of Looking Glass, including creative director of the company Paul Neurath. While it is a something of a surprise, it's not all that unexpected: the rights to *System Shock* was publisher Night Dive Studios' first purchase back in 2013, when it released the original games for modern hardware and even said recently that it was considering a third game in the franchise.



> A GAMING EVOLUTION

System Shock > System Shock 2 > BioShock



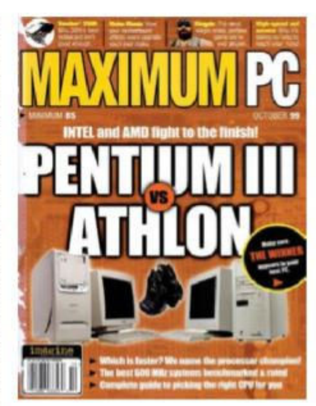
The sequel cast off the sprite-based graphics for something more modern, as well as bringing RPG elements to the forefront.



Much of the gameplay remained the same, but the combination of new elements made for a rich experience.







System Shock 2 shines where it counts: in immersive gameplay that bends genres. Gamers looking for a refreshing change of pace from redundant fragging need look no further

Maximum PC, 1999

a "kind of love/hate relationship with her" where, depending on your actions, you would be reprimanded or rewarded by the omnipresent AI. Chey highlights how future games came to adopt this kind of relationship between antagonist and player, such as GLaDOS in the superlative *Portal* or even the developer's own Andrew Ryan (and later Atlas) in *BioShock*.

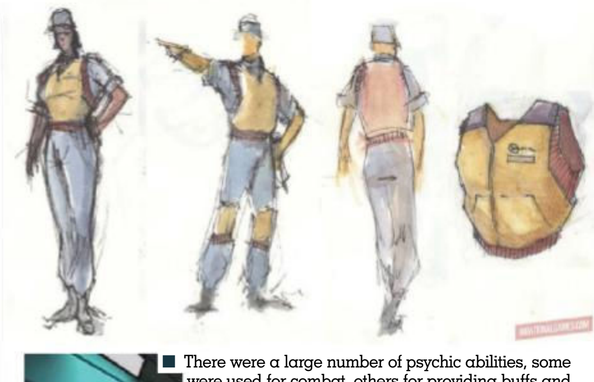
It's amazing to consider just how innovative *System Shock 2* was, especially for its time. It introduced so many elements into the first-person shooter genre that just weren't being considered, and improving on the foundation set before it by Looking Glass in the original. But it's especially awe-inspiring considering the situation with which it was developed: a small team, with a small budget and even less experience. "It was a *very* small team," says Chey. "It was no more than 15 people, Irrational itself was probably only fewer than 10 people and we had a few Looking Glass people that were loaned to us for the duration of the project. We didn't have a lot of experience. I mean, I was the project manager of the game, and I had never managed anything. My previous job at Looking Glass was as an AI programmer, so I went from two years of experience doing that into project management. And I wrote the AI for *System Shock 2* as well. Ken was the lead designer and he'd never had a lead design role before. And then we had a bunch of people we had hired, and most of them I would say it was their first job in the industry."

For such a team to produce a game as well-revered as *System Shock 2* was unusual at this point, by now the industry had begun to settle into a routine and – by and large – new games and projects were being designed by reputed developers. Not so with Irrational Games. "It was terrifying," recalls Chey. "I don't know about Ken and Rob but I was terrified, because I was in charge with shipping this game and I'd never done that before. It was imperative for us. There was a lot of money, it wasn't a lot of money for game development but for us it was a lot of money and it just seemed like the situation was going to turn out pretty badly – that it was an opportunity to really mess it up."

Chey goes on to explain that Irrational Games was mostly insulated from the financial pressures and expectations of the industry – "we were building it for someone else," he explains – but that didn't mean



It's interesting just how many similar design elements can be seen in *BioShock*. There's a very similar scene like this in the opening areas of Rapture.



There were a large number of psychic abilities, some were used for combat, others for providing buffs and some for interacting with the environment.

there wasn't anything serious at stake. For one thing, the financial success of Irrational Games relied heavily on it, but it was the developer's opportunity to stake its claim in the gaming industry. "For us we wanted to make a really great game to prove we were a great developer so we could go on to bigger and better things in the future," explains Chey. "We kind of knew that it was very unlikely that we would get rich from making *System Shock 2*, but it was kind of proving ourselves – you know making our name as a developer, and in that sense it sort of set us up for the rest of the things that we were able to do at Irrational." Without *System Shock 2*, it seems we might never have seen many of the great titles the developer would later go on to create. And what a tragedy that would be.

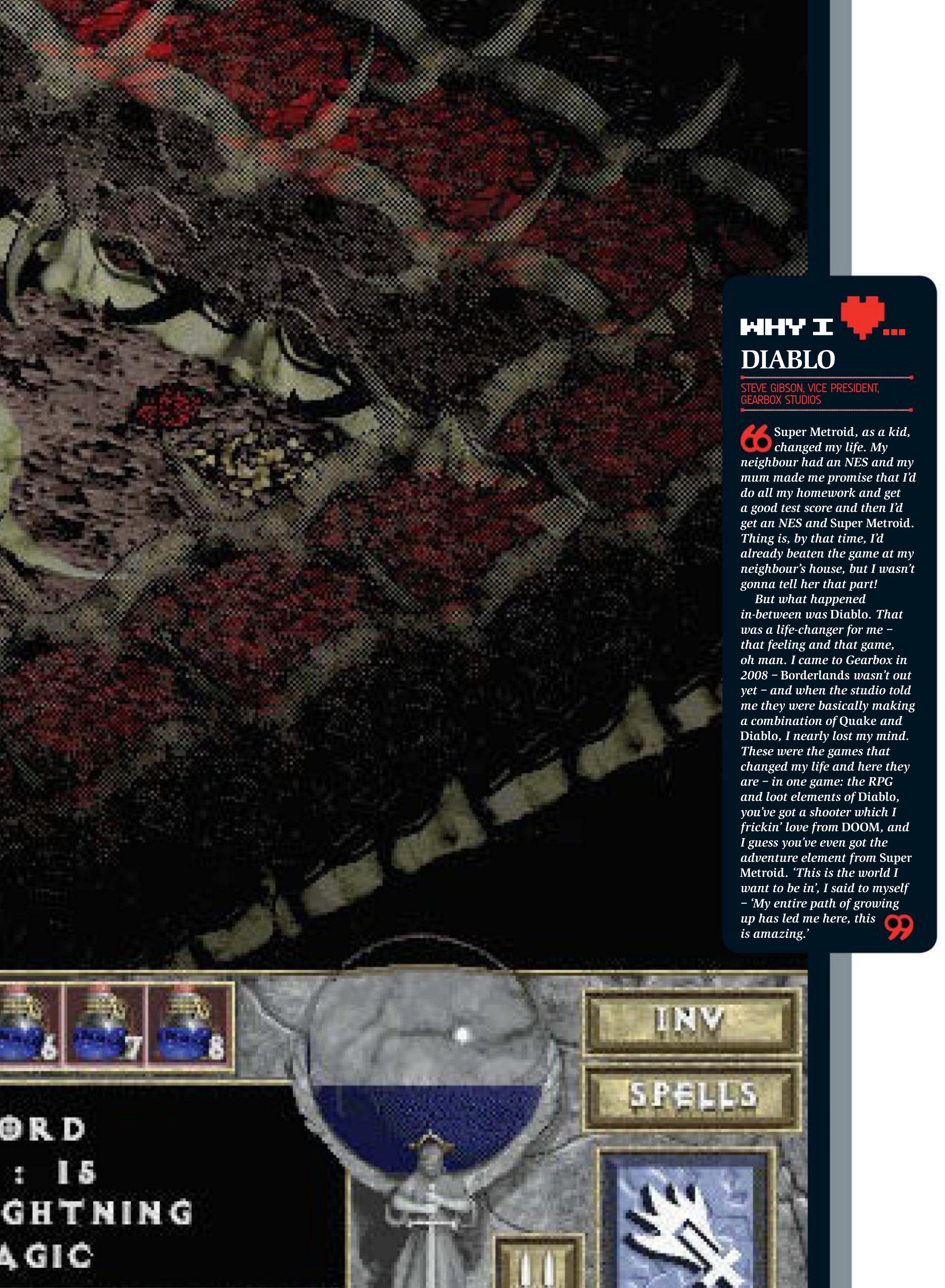
Even with the developer's ambition, however, it was by no means a surefire success. "I did enjoy playing it," says Chey, "and I remember playing it actually after we sent off the final gold master and I actually had time to sit down and play, and I did kind of think 'wow, this is actually pretty good. This is good, right?' When the reviews came in I was completely over the moon. I was shocked that people liked it as much as they did." Even so, Chey recalls that *System Shock 2* and the games that Looking Glass created were "always quite bad up until about a month before they shipped," owing to the number of different elements included into the game. "Those games are always one step away from being a disaster," he says with a laugh, "there was no point when I was working on it when I thought 'oh yeah this is going to be fantastic'."

As it turns out, the effort was worth it, and though it wasn't a massive seller at retail, it still received great reviews from critics. Despite the fondness with which Jonathan Chey remembers his time working on *System Shock 2*, there's a poignancy to his final thoughts – Irrational Games was a team up against it – a low budget, very little time and a lack of experience. Yet here was a developer-driven team determined to prove themselves. "It's the hardest I've ever worked in my life," says Chey, "I will never work that hard again – I don't think I'd be capable of it."



“When [Gearbox] told me they were basically making a combination of Quake and Diablo, I nearly lost my mind”

STEVE GIBSON, VICE PRESIDENT, GEARBOX STUDIOS



WHY I ♥...

DIABLO

STEVE GIBSON, VICE PRESIDENT, GEARBOX STUDIOS

"Super Metroid, *as a kid, changed my life. My neighbour had an NES and my mum made me promise that I'd do all my homework and get a good test score and then I'd get an NES and* Super Metroid. *Thing is, by that time, I'd already beaten the game at my neighbour's house, but I wasn't gonna tell her that part!*

But what happened in-between was Diablo. *That was a life-changer for me – that feeling and that game, oh man. I came to Gearbox in 2008 –* Borderlands *wasn't out yet – and when the studio told me they were basically making a combination of* Quake *and* Diablo, *I nearly lost my mind. These were the games that changed my life and here they are – in one game: the RPG and loot elements of* Diablo, *you've got a shooter which I frickin' love from* DOOM, *and I guess you've even got the adventure element from* Super Metroid. *'This is the world I want to be in', I said to myself – 'My entire path of growing up has led me here, this is amazing.'*"





INTERVIEW

MAKING OF DAY OF THE TENTACLE

To celebrate the remastered release of arguably LucasArts' most iconic adventure game, **games™** speaks to co-lead designer Dave Grossman about its creation

SELECT GAMEOGRAPHY



Secret Of Monkey Island (1990)
Writer/Programmer



Day Of The Tentacle (1993)
Lead designer



The Walking Dead (2012)
Director of Design/Writing



This was yours and Tim Schafer's first lead role. Do you feel it gave you a drive to create something unique and special?

Yes, but maybe not for the reasons you would think. I mean certainly it was exciting for us to be in the driver's seat but I think part of the success of that game was that we figured out early on not to overdirect people too much. So we had a core vision of what we wanted to do – which was the 'living inside an old Warner Bros cartoon' thing – and that was really good for giving people marching orders and keeping everything on track, but a big part of it was just getting a really good team together and then let them do what they do best to try and draw the best out of them. Anybody that was doing animation for something was usually given some basic framework of what was supposed to happen in a situation, and they could just dress it up however they wanted to and they generally made it way funnier than we initially imagined. So yeah, I think us being in charge was important, but I think, because we were new to it, we didn't have the kind of egos we do now.

Did you find this new role challenging?

We were somewhat prepared because we had been tailing Ron Gilbert for a couple of years and even today I still emulate his leadership style to some degree. He was very good at having the vision in his head and people would pitch ideas at him and he would either go 'That's great' or he was like 'Um, I don't think that fits' and then he would tell you why. And that was always super helpful for getting you onto the next idea, because you could realise that the tone was wrong or something is going on that is not fitting quite right in Ron's brain. That kind of nurturing, high communication style and always asking people questions about the thing they're working on is something that I've taken into my own style with my career. And also we had some knowledge and exposure to all the production parts, like how much different things cost and all the different pieces that go together. Because leading a project at LucasArts in those days was a combination of both creative leadership and also being responsible for a budget and a bunch of people – which is not a thing that happens all that often any more in this industry.

LEADING A PROJECT AT LUCASARTS WAS A COMBINATION OF CREATIVE LEADERSHIP AND RESPONSIBILITY



THE TIME PUZZLES

“ ■■■ You had to think in an extra dimension than usual. It just made things a lot more complicated, but also it's a headstart in a different way because you have some idea already about what kinds of puzzles you're going to be making. All these things in a period of 200 years – so what happens over 200 years? Okay, well, wine turns into vinegar, for example. That was a low hanging fruit for doing puzzles. ”

What was the benefit of returning to *Maniac Mansion*?

The good part about it was that because it had been five years since the original one had come out the technology had changed, you could do a lot more with art and so forth, so part of our marching orders was 'Don't worry about matching the style of the original, just do something new but using that same kind of concept and world and characters'. So then we were able to go off and do the sort of Chuck Jones cartoon thing that we did do.

Did you have a particular design goal?

The idea was 'Okay, let's be funny but let's get the player into the headspace of a cartoon character'. And so we were always looking for opportunities to do that, to get them into a space where thinking like a regular human being would just get you into trouble and thinking like a cartoon character would bring you success.

How did you go about ensuring that players would approach the game in this way?

Well we had a huge playtest session for friends and family and had them come and play the game while it was in a sort of alpha plus-state. That was always a great process for figuring out where you had gone wrong with the design of some puzzle or the information's not coming across. The beauty of it was that you could just see them stuck on something and you could just ask them 'What are you thinking about right now?' and you could give them a hint and then you could think about how to implement that into the game so that you didn't have to come over and give them advice.

From these sessions, did you implement any changes into the gameplay?

Oh yeah, absolutely. Because especially in those old days at LucasArts, it was fairly easy to change stuff pretty late into the game. With *Day Of The Tentacle*, that was the first moment where we actually recorded voices for it, and that was the point where you kind of have to stop changing dialogue, once you do that. But that happened way at the end. A lot of games these days you do that early so you can animate to it, but there wasn't any actual lipsyncing or anything in this, so we did the voice recording pretty late. So that meant we could redesign stuff and there wasn't a lot of art money committed to it yet and we were more agile about that than a lot of things these days.



Day Of The Tentacle's unique art style drew you into the game almost immediately, and is the central reason it stood out so much.

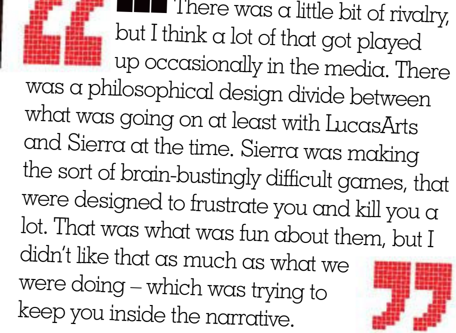
Day Of The Tentacle was the first LucasArts adventure to use voice acting. How did you approach this new area of game development?

Yeah, I mean there's always a few things with voice acting. You might have ideas in your head about what the characters might sound like, and some of them are too close together and so you have to change your thinking about it because you want people to be able to easily distinguish the voices if they're onscreen together. That kind of thing. It was really hard to cast Bernard, I remember.

We went back and forth and we listened to lots and lots of takes from people and none of them felt right, and I think partly it was because he's kind of the centre of everything as the one holdover character from the original game and he's kind of the glue that holds the other two together just socially speaking. So I think he needed to be a little more grounded as a real person as the rest of them, and everything that we heard was a little bit too cartoony – which is an odd thing to say since we were trying to make a cartoon. So what we wanted was a real person who sounded a bit like a cartoon, and it was hard to articulate that. I don't think we knew exactly what it

The remaster release of this game means that a new generation of gamers gets to experience it, which is fantastic.

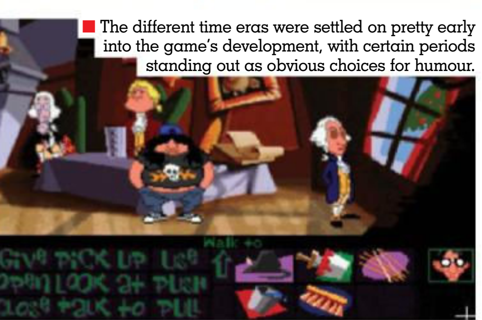
RIVALRY WITH COMPETITORS…



"There was a little bit of rivalry, but I think a lot of that got played up occasionally in the media. There was a philosophical design divide between what was going on at least with LucasArts and Sierra at the time. Sierra was making the sort of brain-bustingly difficult games, that were designed to frustrate you and kill you a lot. That was what was fun about them, but I didn't like that as much as what we were doing – which was trying to keep you inside the narrative."



The different time eras were settled on pretty early into the game's development, with certain periods standing out as obvious choices for humour.







The move to CD-ROM meant that voice acting was a possibility, but there were still technical limitations for full-screen animations.

was that was wrong for quite a while – and finally one day an idea just dropped into my head 'You know, he should sound like Les Nessman from WKRP' and then someone said 'I know that guy's agent, maybe we can just get him?'. We were like 'That would be cool!' And lo and behold, it was!

THE IDEA OF THE GAME WAS TO GET THE PLAYER INTO THE HEADSPACE OF A CARTOON CHARACTER

How was it working alongside Tim when creating the humour for the game?

Yeah, we had a good dynamic, actually. We seemed to be on the same page about a lot of things, and if we weren't it was usually super clear, super fast which way we were going to go. We would just start talking about it and somebody would just clearly be more right, or care about it more than the other one. So it was pretty comfortable working dynamic. We didn't really get into fights about anything, which I have come to realise is a little bit unusual. It's hard to find good partners – I've had a few others over the years – but you need to hang onto them when you get them.

Did you find the creative process to be markedly different from other, perhaps more traditional games?

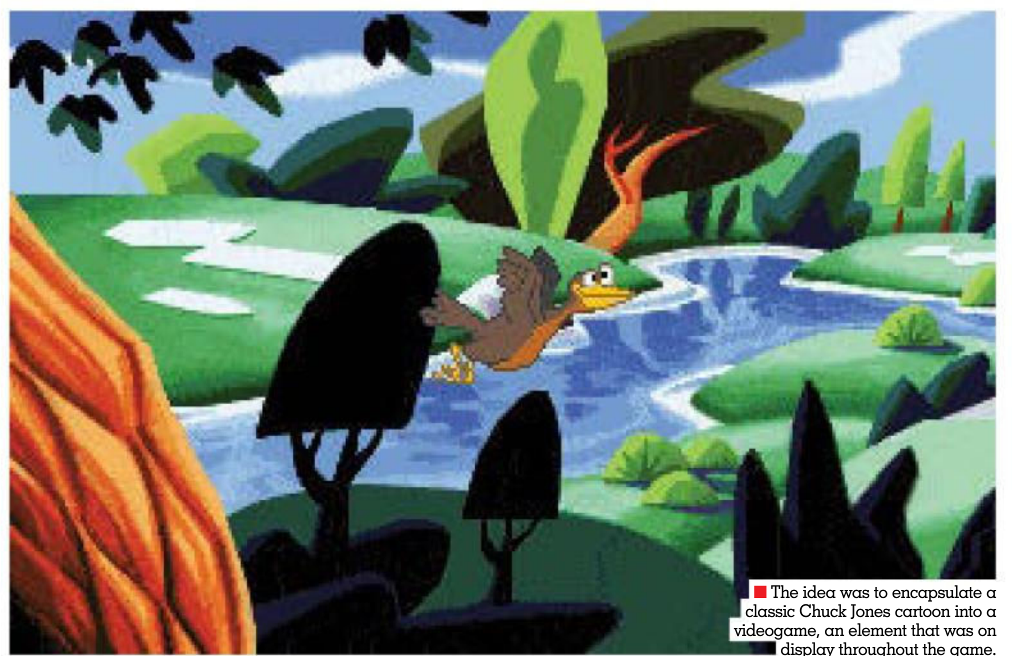
That's interesting because so much else changed just about the way you develop games in general between the time we were working on that game and the first time I worked on a drama, which is something I've done a lot less of. I think that with a comedy you can start a lot of stuff earlier, you need some basic good ideas and then when you're sort of filling in the space between them you can be pretty larky about it. I think you can trust yourself to make the art and do the music and do a lot of the production work without understanding some of the details of what's going to fit in the middle. And I think that's less true for a drama, you want to kind of have a clear, more detailed, more cohesive plan before you start putting any real money into it. And again I think that it boils down to that thing of if a small piece goes wrong, the whole thing can come tumbling down around you like a house of cards, and I think that's less true for comedy.

Did you find the game changed much during the development from what you had originally designed or planned?

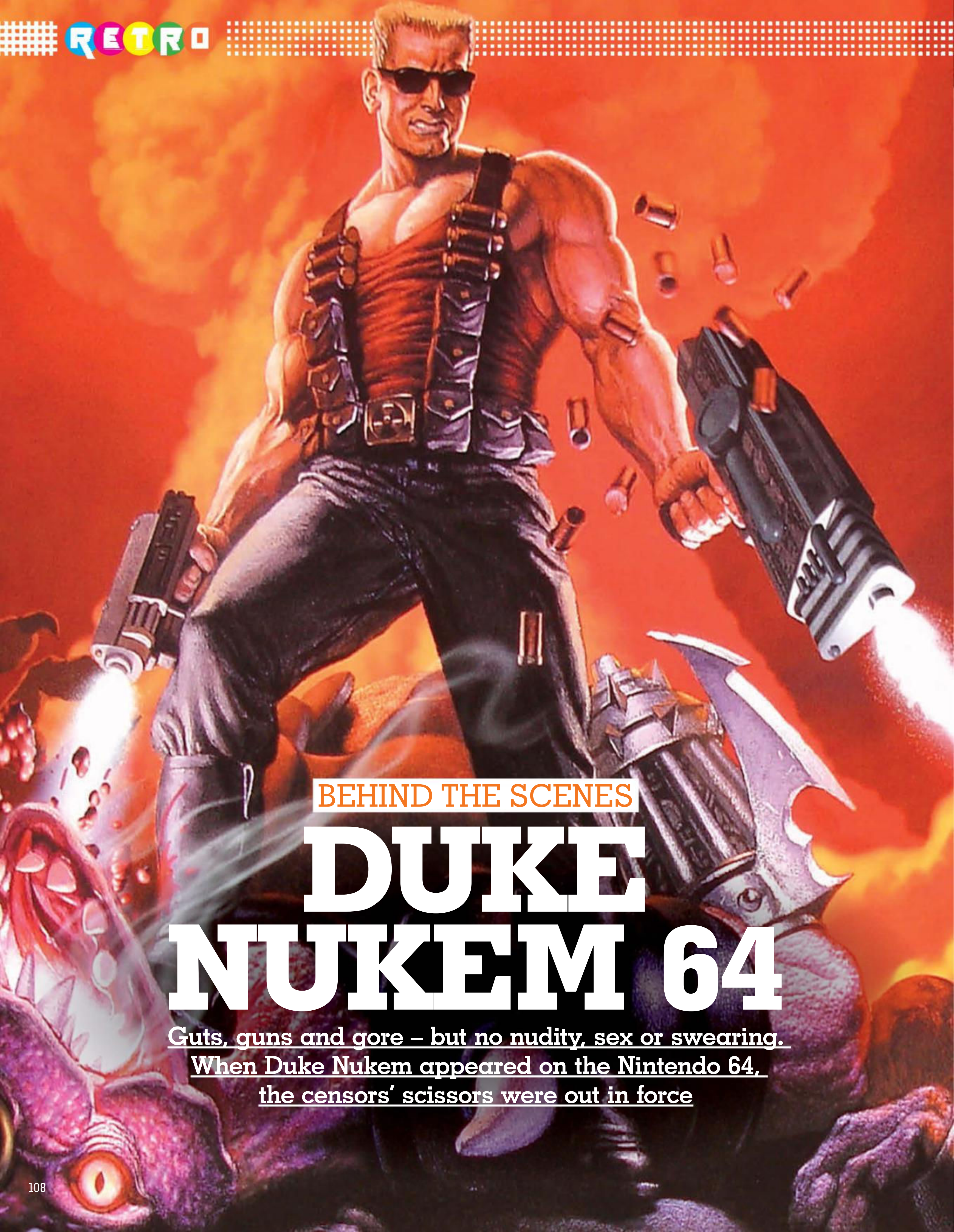
Not in a significant way, no. It just kept getting better and better every time we saw some detail somebody was putting on the screen. It got closer to what we wanted, you know? The trickiest challenges were about technical limitations of what we could do on screen. Because we were after this animation style with lots of squashing and stretching and characters being really large on screen, but this was early in the days of VGA and the heavily pixelated characters – 320x200, I think the game might've been – anyways, the small number of pixels on screen and the limited 256 colour palette and so we had to pull some technical tricks behind the scenes to get some of the stuff to work at all. An actual full screen animation just was not possible by conventional means, you just couldn't move the pixels around.

Did you feel at the time that you were creating something special?

Well you can't really predict what the public is going to think about anything. I think we were conscious that we were making something good, I think, it made us laugh anyway. And that's mostly all you've got at the end of the day, your own opinion and the opinions of anyone you show it to, you know, 'is this good?'. But you can't predict if 25 years later people will still be talking about it, that almost seems random. You can hope for that, but you can't tell that it's going to happen in advance.



The idea was to encapsulate a classic Chuck Jones cartoon into a videogame, an element that was on display throughout the game.



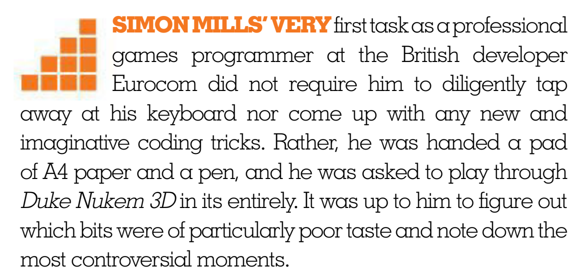
BEHIND THE SCENES

DUKE NUKEM 64

Guts, guns and gore – but no nudity, sex or swearing. When Duke Nukem appeared on the Nintendo 64, the censors' scissors were out in force



Released: 1997
Format: Nintendo 64
Publisher: GT Interactive Software
Key Staff: Rick Raymo (producer), Ashley Finney (lead programmer), Simon Mills (programmer), Steve Bamford (graphics), Nick Dry (graphics), Neil Baldwin (audio), Steve Duckworth (audio)



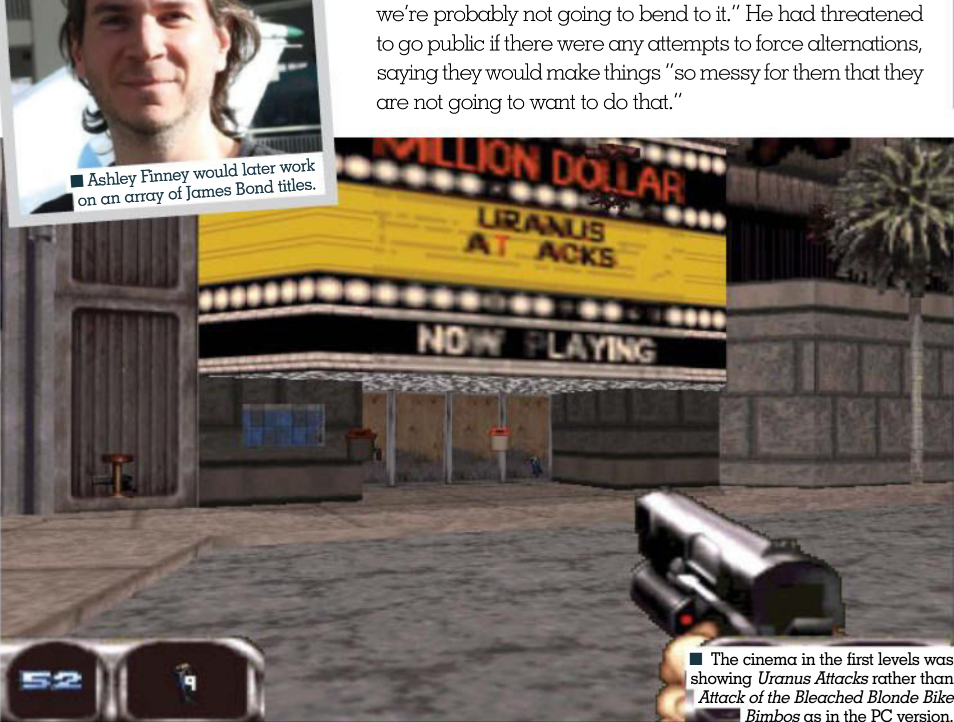
SIMON MILLS' VERY first task as a professional games programmer at the British developer Eurocom did not require him to diligently tap away at his keyboard nor come up with any new and imaginative coding tricks. Rather, he was handed a pad of A4 paper and a pen, and he was asked to play through *Duke Nukem 3D* in its entirely. It was up to him to figure out which bits were of particularly poor taste and note down the most controversial moments.

As tasks go, it was rather time consuming given there were a good number of them. But that was no secret. The *Doom*-esque first-person shooter had stormed on to the PC in 1996, plunging players into a bloodbath of ultra-violence while washing them with ripples of naked flesh thanks to an abundance of strippers. Held together by the impressive BUILD Engine, which was produced by teenager Ken Silverman, the game had potty-mouthed quips from a lead character who embodied the combined personas of John Wayne, Clint Eastwood and Arnold Schwarzenegger. There were lots of Pig Cops with LARD emblazoned on their jackets and imprisoned "babes" to shoot.

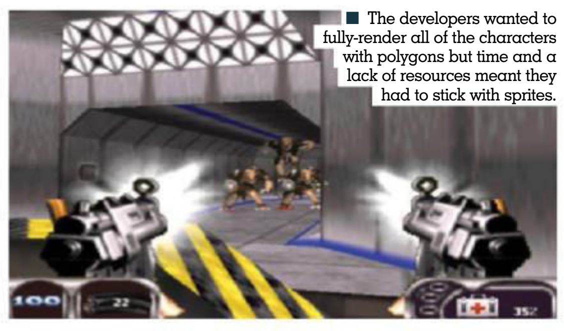
Mills' pad, as you'd expect, quickly filled up. "I'd only just started at Eurocom so I guess they wanted to give me something to do," Mills says of the job. But his role was of great importance. Work had just begun on a Nintendo 64 port of *Duke Nukem 3D* and there was a stark understanding that the Japanese giant had set boundaries which could not be crossed, no matter what. "We had to self-censor the game for a Nintendo 64 release because we knew it would never be published on that platform if we didn't," Mills recalls. The trick was to sanitise the game while ensuring it retained a similar level of *Duke Nukem*'s signature thrills.

Some months earlier, the very idea that the game could be picked apart in such a way had enraged George Broussard. As the president of 3D Realms – the maker of the original game – he had told N64.com that he expected Nintendo to remove certain aspects of the game but he added: "We're not going to be very happy about it, and we're probably not going to bend to it." He had threatened to go public if there were any attempts to force alternations, saying they would make things "so messy for them that they are not going to want to do that."

■ Ashley Finney would later work on an array of James Bond titles.



■ The cinema in the first levels was showing *Uranus Attacks* rather than *Attack of the Bleached Blonde Bike Bimbos* as in the PC version.



■ The developers wanted to fully-render all of the characters with polygons but time and a lack of resources meant they had to stick with sprites.



■ There was an exciting and welcome two-player co-op mode which would be played via a split screen.

RICK RAYMO WAS VERY MUCH PUSHING FOR THINGS TO BE CHANGED

But Eurocom and GT Interactive Software – which was publishing the game – would start making those decisions themselves, understanding that months of inevitable hard work would otherwise be in vain. "Our producer Rick Raymo was very much pushing for things to be changed," says Mills, his list having been studied in great detail. "I'm not quite sure how keen 3D Realms was – I got the impression that they weren't too keen on it - but Raymo would push for things to be different so we were able to change things around a bit."

The alterations fell to a very talented in-house team. Chief among them was Ashley Finney, the project's lead programmer, who had just completed some initial conversion work on *WarGods* getting its 3D rendering running. He was proving to be a dab hand when it came to arcade conversions, having the likes of *Super Street Fighter II Turbo* under his belt and he had been the first to start work on *Duke Nukem 64*.

"A couple of us had flown out to Providence to meet Ken Silverman and get a copy of the *Duke Nukem 3D* code by hand," Finney tells us. "Ken was a really nice guy, he fed us homemade soup, we played on his Galaga machine and took a quiz on the shapes of the States of America. He gave us the code on a 3.5 inch floppy disk and we flew home."

Finney's first job was to look at *Duke Nukem 3D*'s file format. "I reversed engineered the binary and wrote something that would build true 3D polygon meshes of the map in realtime," he says. When Mills joined him – the pair operating from a spacious room under a stairwell at the back of Eurocom's offices – the work was divided up. "I removed the game code from the rendering code so that Ash would work on getting the actual rendering engine working," says Mills.

CONTROLLING THE DUKE

With no keyboard to hand, Eurocom had to think hard about controls

ANYONE WHO HAS seen the PC version of *Duke Nukem 3D* will know that it was a complex game to control. It could be played using a joystick, mouse, gamepad or keyboard with the latter utilising more than 50 keys for various options, whether it was to call up 2D maps, auto run, select weapons or centering the view. As you can imagine, the N64 controller had none of that breadth.

Yet for Ashley Finney, there were no headaches. "I don't remember any problems", he says. But that may be down to the team "borrowing" ideas from another, similar game. "We more or less nicked the controls from *Turok*", Simon Mills freely admits. "We felt that's what the controls should be." Even so, it wasn't the easiest game to control. Many reviewers and gamers picked up on that although with a lot of practice, it started to become second nature.

A tap of the left shoulder button allowed players to use an item from their inventory,

The R-button was used as a "shift" key and, in combination with other buttons, could be used for activation, or the selection of weapons and inventory items. It could also be used to jump, fly or swim.

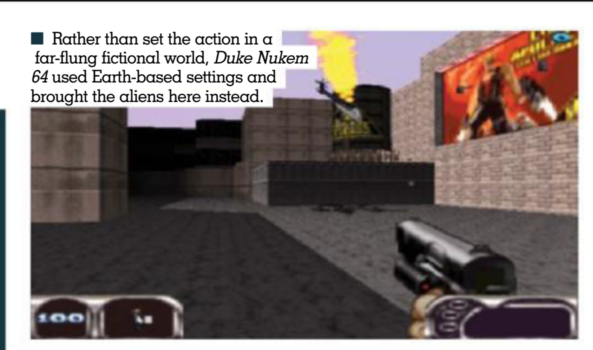


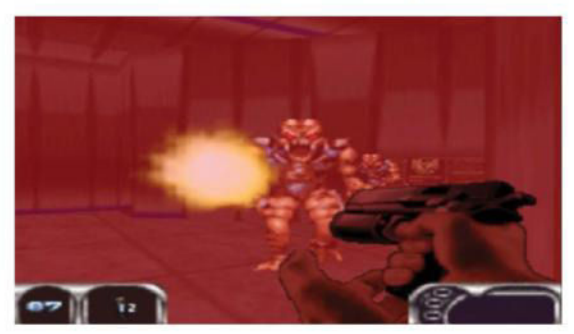
When the Control Stick Move Mode was actioned, players could use this stick to get around the environment otherwise it would just allow for looking around.

The D-pad would always allow you to select an inventory item but its secondary use depended on whether the player was using the control stick to look around or to move. In the former state, the D-pad would allow for weapon selection, otherwise it would be used to look around.

The functionality of the A and B buttons were also dependent on the method of primary movement control. They could be used to crouch, fly or jump or to select weapons depending on what else you might be doing. It was tricky to learn, but effective for the time.

The C buttons would be used for movement if the control stick was used to look around. Alternatively, they could be used to side-step, jump, fly, swim or crouch.


Rather than set the action in a far-flung fictional world, *Duke Nukem 64* used Earth-based settings and brought the aliens here instead.



The duo worked on high-end computers made by the American manufacturer Silicon Graphics. It was a clumsy way to develop the game but the Nintendo 64 was still new at this point. Mills stripped down everything that was PC specific and created a platform agnostic game that would draw everything in a 2D vector view. "Simon got the game code working on the PC in a top-down view using vectors to show the position of items and enemies," says Finney. Mills also wrote a tool that would convert the maps into a format that the Nintendo 64 could use.

The big difference was that the PC version used raycasting, which created a 3D perspective in a 2D map. "It draws everything in columns and pixels and goes across the screen deciding the shooting range and the environment and what it hit and drawing that texture," explains Mills. The N64 was polygon-based so Finney wrote a utility that turned the maps into triangles that could be rendered more normally.

Eventually, the two halves were ready to be pulled together and "late one night I integrated the game code with my code and you were then able to play most of the game on the N64," Finney says. It was at this point that the intricacies of the game could be worked upon. Eurocom had licence to use all of the graphics, sounds, maps and anything that was released in the *Plutonium PAK* expansion pack. But because the team had to adhere to Nintendo's guidelines "that gave us leeway to put a little of ourselves into the game," Finney tells us.

The team soon started to grow. Artists were brought in to work on the graphics and the levels given a once-over by designers Bill Beacham and Kev Harvey. Beacham assumed the role of project manager along with Neil Baldwin, one of Eurocom's co-founders. Baldwin worked on the audio with Steve Duckworth. It was very much a hands-on affair with management working closely with the team and the whole thing overseen by Raymo who, although being based in the US, was effectively the liason between GT Interactive and 3D Realms. He would make regular trips to the UK to ensure everything was on track.

It was a creative, if not indulgent, working environment. "The room Simon and I shared was pretty much



■ The game was blessed with an array of reloadable levels and aliens would die in a satisfying splurge of blood.

WHAT THEY SAID...

The sheer level of graphical diversity is impressive in itself but to spread the game over 28 levels and still include an exciting multiplayer mode is nothing short of brilliant

N64, 1997

soundproofed and we took advantage of it by playing loud music most of the day and night," Finney recalls with fondness. The team members were based in different rooms in the building but they would all bounce ideas around and inject some very English vibes into what was seen as a traditionally bombastic American game. Raymo would encourage the team to do this – "we could throw stuff in and almost no-one would say no," Mills says – but there was some resistance from 3D Realms at times.

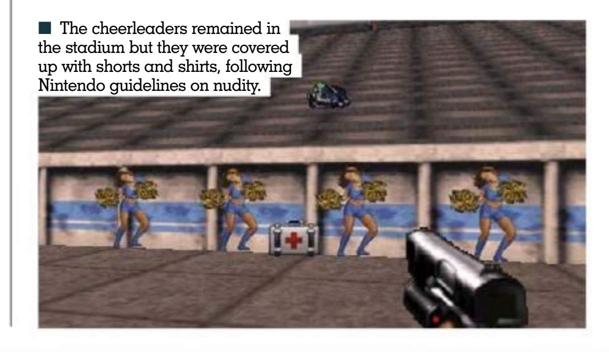
"We always thought *Duke* was meant to be a spoof but I got the impression 3D Realms took it more seriously. We included jokes that sometimes 3D Realms didn't get. There was English humour in there too. But for us it wasn't just a port," says Mills, "it was an enhanced port. We would be taking stuff out but we were also putting stuff in."

Most things remained such as the real-life locations that had so distinguished *Duke Nukem 3D* from the more fantastical *Doom*. The N64 version retained the puzzles of the PC version and the monsters never gained any better expressions than the original. It was possible to pick up vitamins that enhanced *Duke*'s speed as well as armour, a jetpack and night vision googles. The BUILD Engine had proved good at roughing out levels and so the designers could quickly prototype fresh ideas, though.

One of the most noticeable changes was the introduction of some new weapons. The Missile Launcher replaced the Devastator while the Freezethrower was dropped in favour of the Plasma Cannon. The other weapons were also redrawn with only the Laser Tripbomb escaping a rethink. "Rick claimed there had been some kind of internet poll and that the two least favourite weapons had been the Freezethrower and the Devastator," says Mills. "So he said replace those with something else which is why we came up with the new ones."

I GOT THE IMPRESSION 3D REALMS TOOK IT MORE SERIOUSLY

The game's artificial intelligence was also altered – "just so we could modify AI behaviour," Mills adds – and the use of polygons allowed for a different perspective. "The original game engine didn't use polygons and would have run very slowly on the N64 so the whole rendering engine was written from scratch by myself," says Finney. "The original *Duke* 3D maps could move and change shape in unusual ways meaning that I had to convert the map to polygons in realtime. Sectors could be created in odd shapes with holes, which was hard to triangulate correctly and quickly. I had to triangulate the floors and ceilings offline which meant we had to change some of the maps that would alter the floor plan."



■ The cheerleaders remained in the stadium but they were covered up with shorts and shirts, following Nintendo guidelines on nudity.

Finney also spent a while trying to get a 3D dynamic lighting system working and there was even a screenshot published in an American magazine showing it in full flow. It would have tracked missiles and lit up corridors with explosions but it wouldn't work at a decent frame rate and so it was dropped. At the same time, Mills had wanted every character to be built and animated as polygons but there wasn't any time. "The final boss was a proper polygonal character but the others were left as sprites," he rues.

The biggest alteration of all came with the approach the game made with its female characters, though. Known as "babes", these young, good-looking women were victims of the game's alien invasion and they appeared in various guises from breast-bearing strippers to those who were cocooned, trapped or festooned on posters. Controversially the babes trapped in the alien pods could be killed in *Duke Nukem 3D* but in the N64 version, they could be rescued instead and it became a fundamental part of the game.

"Just killing innocents like that was too much," says Mills. "I may be wrong but I think it was my idea to have the rescues in and have it as a stat at the end of the game so there was something to search for in each level. It was another thing to do in the game and something for the completest. We'd hide the women in strange places so they were an extra thing to find." At the same time, out went nudity along with bad language, drug references and anything religious (there was no chapel in the N64 version). It left a void, though, and while a lot of removed material was replaced with a pop culture reference, extra violence was used to bridge the gaps. "This wasn't a conscious effort, it just happened," explains Finney.

Perhaps it seems perverse that the game could not reference sex but was allowed to be even more violent yet that is what happened. The Red Light District became Gun Crazy and a gun shop replaced the strip club. There was a burger restaurant instead of an adult bookstore.



■ There may have been some risqué posters dotted around as the developers pushed the boundaries but there were no strippers or prostitutes.

QU'EST-CE QUE?

The Duke also made his way around the world

JON ST. JOHN was always the man behind the Duke's voice – except when it came to the French version of *Duke Nukem 64* when the dialogue was re-recorded by a French actor. "We thought he was really good but 3D Realms wasn't happy when they found out because they thought Duke was also Jon and that subtitles should have been used," says programmer Simon Mills. That would certainly have been the case for the Japanese version. "A Japanese publisher wanted to release the game, which was odd because we heard first-person shooters didn't do well in Japan," says Mills. "We removed all the blood and we had a Japanese company do the font but when it was all finished, the publisher said it didn't want it any more. It didn't appear."





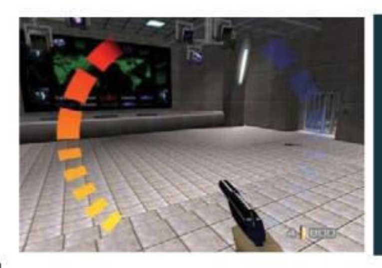
WE WERE ALL BIG ACTION FILM FANS

"I even allowed the corpses to be shot and they would bleed and explode," laughs Mills. "I was proud of that. I think the idea for the strip club becoming a gun shop was Nick Dry's [one of the graphic artists]. He was of the idea that in America sex was bad but guns were good so we wanted to point that out. Nintendo was ok with violence so we replaced the nude women and had more exploding corpses."

In each case, lawyers would check the content – "it's the same on every game," Finney points out – and anything too close to the mark would be kicked back. "Things like this are iterative," Finney continues. "It gets kicked back and you change it and send it off again, if it's kicked again you change it some more. If you've had to change it so much that it's missed the point then you scrap it and try something else. None of this was a real problem [on *Duke Nukem 64*] since we weren't making a carbon copy of *Duke*

> A GAMING EVOLUTION

GoldenEye 007 > Half-Life > Call Of Duty



Although *Duke Nukem 64* made an impact on the N64, Rare's *GoldenEye 007* became the console's defining FPS.



The first *Call Of Duty* followed the trend for shooters based upon real-life wars, though the franchise has become more futuristic of late.





The alien on the toilet remained in the game but fail to shoot and he'll soon come after you – without washing his hands. At least there was a medikit handy.

Nukem 3D."

But what of Duke himself? Did the team think about tinkering with the main character in any way? "No, 3D Realms were rightfully quite strict about the look of Duke himself," Finney asserts. "Any render or graphic we did of Duke went through several checks by 3D Realms before it was signed off. Again, it wasn't a problem, it was their IP and they wanted it to look perfect." In fact, when it came to a question of deciding whether to go with the Duke's voice or have in-game music instead since a lack of space meant it had to be on or the other, the answer was unanimous.

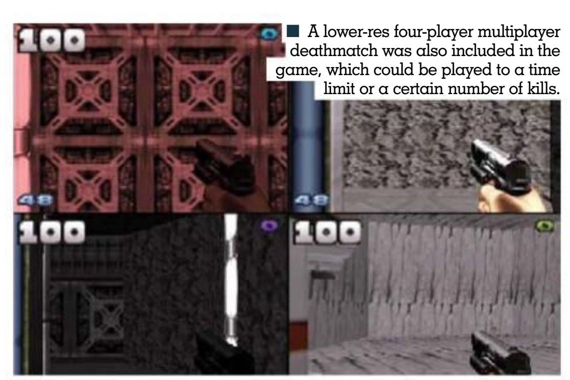
"We had to go with Duke's voice," says Mills. "It's one of those things about Duke. He's talking and always quipping; he always has a line and that's a unique feature of him. No other games did it and while it's become a cliché since then to have characters say something, Duke virtually invented that. GT Interactive felt the voice was more important than the music."

Not that the team could use the original soundtrack. The cussing had to be stripped away and it meant a whole new script and another trip to the recording studio for voice actor Jon St. John. His voice was slightly deeper for the Nintendo 64 version – "maybe different recording sessions sees him do things slightly differently," offers Mills – and there were some lines that 3D Realms queried. "We'd tell them which movie it was quoting and then they'd be okay with it." Finney adds: "We were all big action film fans and you can see that by the references in the game. The artists and designers liked to put in little easter eggs from their favourite films or TV shows. My personal favourite was the U.S.S. Monkfish a reference to a sketch in *The Fast Show*."

For those who played the game on the N64, there was another difference when compared with the PC version. It wasn't possible to save the game mid-level. The PC game would save the entire state of the map and that resulted in a huge file, which would never have fitted on to a N64 memory card. "We had to drop any thoughts of a mid-level stage and we got the designers to look for things like instant death – the moments where you'd pull a switch and something would kill you," says Mills. "Having those kinds of things in the game would have frustrated players."

As development continued, it became apparent that the Nintendo 64 would be spawning some FPS rivals to *Duke Nukem 64*, namely *Turok* and *GoldenEye 007*. The team was influenced by *Turok* in particular and it led to them adding 3D explosions and the shockwaves. *GoldenEye* was seen as stealthier and more serious. "But yes, we did play the rival games," says Mills. "We'd look to see if they were doing anything interesting or anything worth stealing."

In order to explain the *Duke Nukem* story to newcomers on the N64, one of the artists drew up a storyboard of the tale so far and Mills added some simple effects on them so that they could be expanded and scrolled with sound. There was an idea to have a *Duke Nukem* arcade machine in the game that would play the first two games but it wasn't viable given the available resources.



A lower-res four-player multiplayer deathmatch was also included in the game, which could be played to a time limit or a certain number of kills.

WHAT THEY SAID...



This game is incredible. The graphics in the N64 version are ace, and the variety in each stage will keep you going for months

Nintendo magazine, 1997

Even so, there was room for a four-player death match and a co-op mode. "Four-player death match was a thing because Nintendo was pushing four player," says Mills. "They had the four joystick ports and if you were doing a N64 game it was assumed you had to have four players. We kind of knew we'd do the split screen too. The co-op mode was because the original PC version supported it so we thought we'd give it a go. We went with two-player in the end because four-player had a bad frame rate. You can actually use a cheat code to get four player working so it's kind of functional but we decided the frame rate wasn't good enough for it to be in the final version."

Finney was pleased to have multiplayer in the game. "We knew we were up against some big games at the time of our release so we had to support multiplayer," he says. "We were also all quite fond of dinner time multiplayer games so it seemed logical to have this in *Duke Nukem 64*." The team was also up against a punishing schedule. "As always the deadline was tight, we stayed late quite a few nights of the week and slept under desks when necessary," Finney adds.

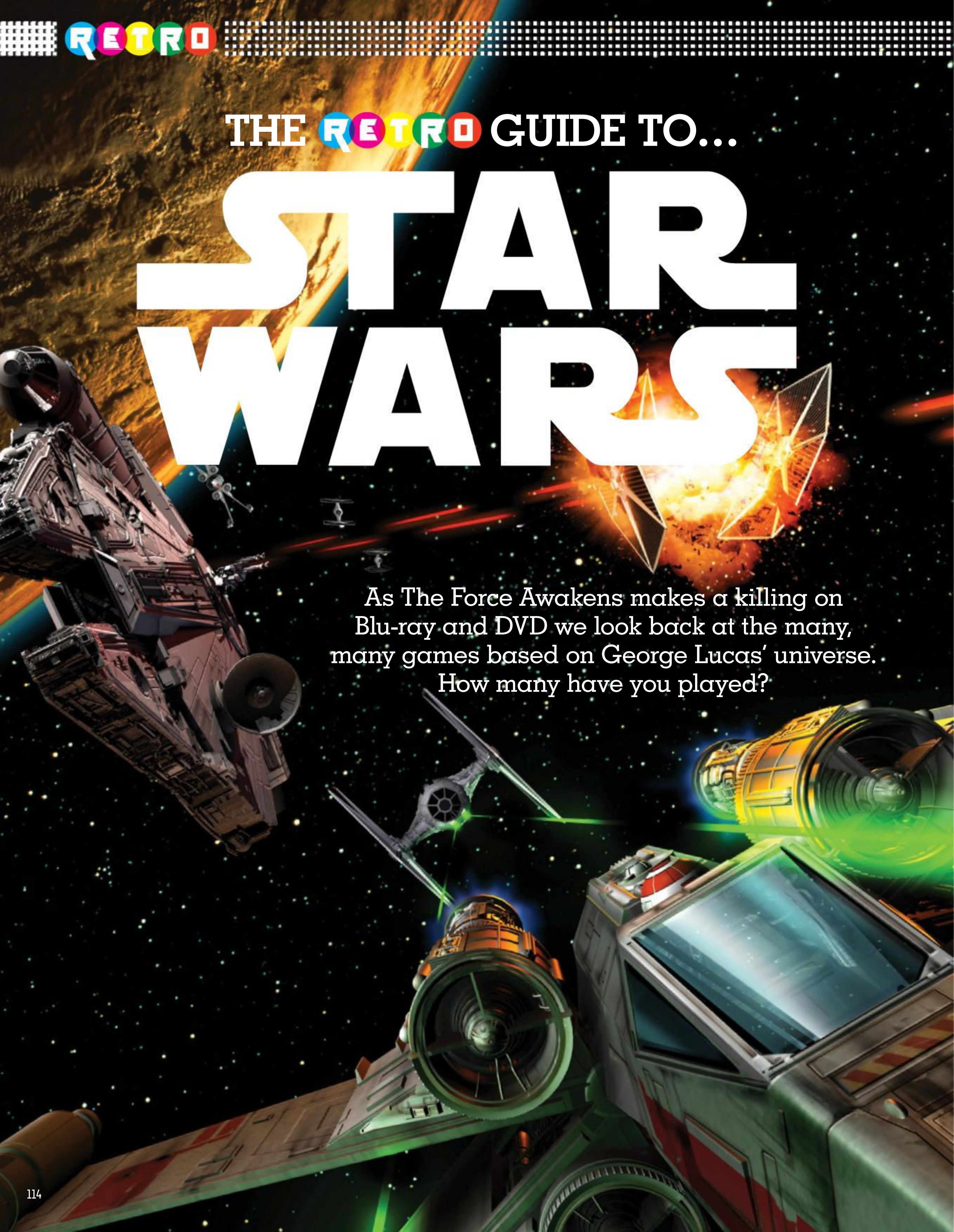
In fact, things went to the wire. "Three hours from the final deadline, we realised that we had missed something important with the cheat menu," explains Finney. "Simon set about fixing the code when the power failed to the whole building. At that time, Eurocom didn't have a backup generator and all we could do was sit outside on the grass bank and look nervously at each other. Power was restored an hour later and Simon completed the task in time."

There was a sigh of relief but nothing in comparison to how the team felt when the game shipped and the reviews came in. All of the effort was rewarded with great review scores and even though critics instantly noticed that it had been censored, this new game was widely seen as having given the game a fresh lease of life. It was the blood-soaked treat Nintendo 64 gamers had been hoping for.

THE RETRO GUIDE TO...

STAR WARS

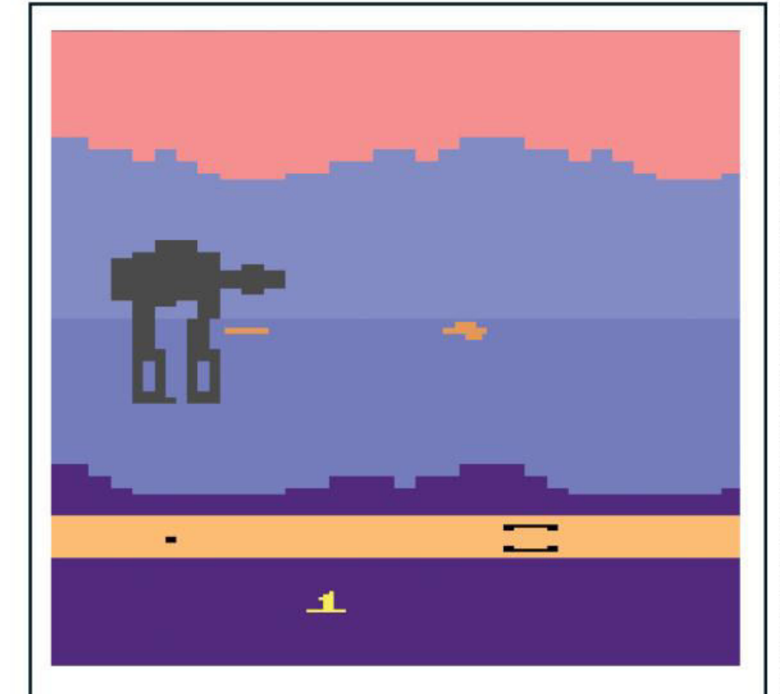
As The Force Awakens makes a killing on Blu-ray and DVD we look back at the many, many games based on George Lucas' universe. How many have you played?



NO MOVIE LICENCE has as many games devoted to it as *Star Wars* does. Although the first game didn't arrive until five years after the original film, they soon began arriving thick and fast, eventually reaching saturation point during the early Noughties, when the release of *The Phantom Menace* and the original trilogy saw interest in the brand peak to an all new high.

Interestingly, the first *Star Wars* games weren't actually made by Lucasfilm as the studio didn't have a dedicated games department. Instead the licence was given to the likes of Parker Bros and Atari, although George Lucas would still have the final say on what would appear in the final product. In fact, even when a games division was finally set up at Lucasfilm *Star Wars* games weren't even on the menu, with the developer instead working on original ideas such as *Ballblazer*, *Rescue On Fractalus!* and *The Eidolon*.

It wasn't until the early Nineties that the newly renamed LucasArts started to make its own *Star Wars* games, with early examples including *X-Wing* and *Rebel Assault*. More quickly followed, but it continued to license out the popular brand to other developers, including BioWare, Sega, Pandemic, Totally Games and many others. All in all over 120 *Star Wars* games have been released since the early Eighties, covering a wide array of genres, from educational games to first-person shoot-'em-ups. As a result we could never possibly cover all of them, although the following games do make up the best and worst examples from the ground-breaking saga.



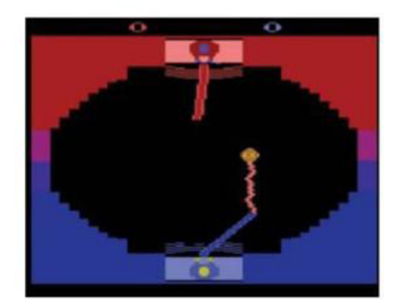
STAR WARS: THE EMPIRE STRIKES BACK 1982

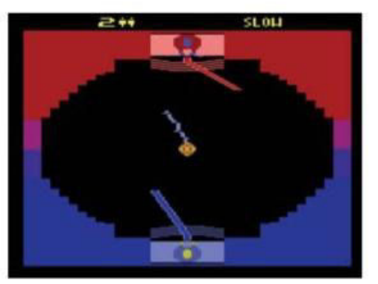
ATARI 2600, INTELLIVISION

Star Wars was already five years old by the time the first licensed game came out, as a result, Parker Bros focused on creating a videogame based on the excellent second movie. Choosing to focus on the dramatic Hoth battle – which would be the inspiration for many later games – it sees you scrolling across an impressively smooth landscape trying to shoot down as many AT-ATs as possible. You need to stop the AT-AT's from reaching Echo Base, so simply shoot them down, *Defender* style. Whilst not very original it was a lot of fun.

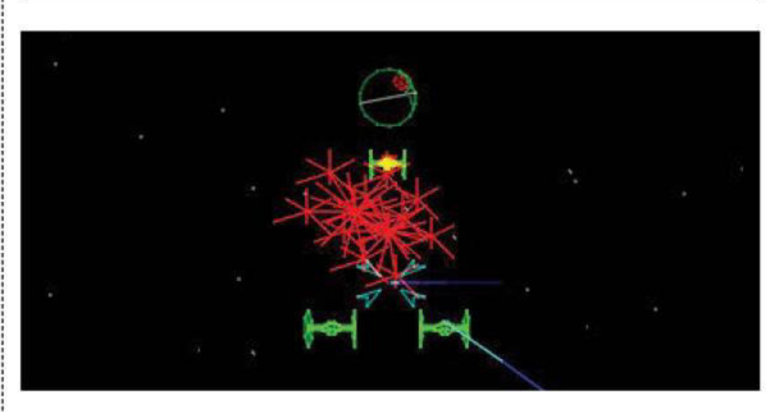
STARS WARS: JEDI ARENA 1983

ATARI 2600





Remember that sequence where Luke receives training from Ben Kenobi aboard the Millennium Falcon? Well, Parker Bros decided to make an entire game on it. The end results were not very good, as if a million gamers suddenly cried out at once. The aim is to deflect shots from a training droid and then deflect them back towards your opponent who resides on the other side of the screen. It's a decent enough idea and has elements of the excellent *Warlords*, but it's let down by shoddy counter-intuitive controls. Even having four difficulty levels can't save it.



STAR WARS 1983

ARCADE, VARIOUS

Atari's wire-frame-based shooter remains one of the most faithful adaptations of the original film and still maintains a cult following some three decades after its release. It features lots of excellent digitised speech, a rousing score, plenty of fast-paced action and three distinct stages to battle through: an initial skirmish with TIE Fighters, a battle across the Death Star's surface and the final deadly trench run, which gets progressively tougher each time you blow the Death Star up. Due to its immense popularity it was ported to a staggering number of systems back in the day, many of which were of a very high standard. It's easily the first *Star Wars* game to truly capture the thrill and excitement of the original movie.

RETURN OF THE JEDI: DEATH STAR BATTLE 1983

ARCADE, VARIOUS

Another Atari 2600 exclusive from Parker Bros and another complete waste of the *Star Wars* licence. Controlling the Millennium Falcon you must shoot waves of enemies in the bottom half of the screen until you can break through the Death Star's shield. You then have to take out the Death Star's core before it can be fully constructed. Once completed you get to do it all over again, but you'll have switched off by then.



STAR WARS: RETURN OF THE JEDI 1994

ARCADE, VARIOUS

Atari's second coin-op adaptation moved away from wire-frame graphics and used raster graphics via an interesting isometric perspective. The results were decent, if not spectacular, with gameplay spread across several stages. The first level is a fun Speeder bike chase that has you avoiding obstacles and shooting down enemies. The second stage switches to the Millennium Falcon while the third alternates between the Falcon and piloting an AT-ST. It's fun, but lacked the impact of *Star Wars*.





STAR WARS: THE EMPIRE STRIKES BACK 1985

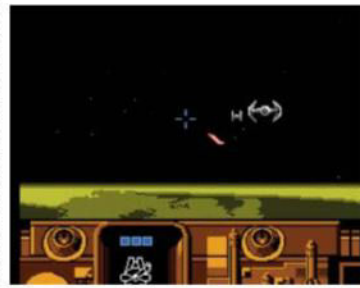
ARCADE, VARIOUS

Atari's third coin-op game wasn't a popular one. It utilised the same wire-frame graphics that had made *Star Wars* so popular and once again featured a lot of variety in its gameplay. This time, players switched between Luke Skywalker and Han Solo and could take part in a variety of tasks, from shooting down AT-ATs to taking out TIE Fighters and negotiating an asteroid field. Unfortunately for Atari, many coin-op vendors didn't want to upgrade their *Star Wars* cabinets.

STAR WARS 1987

FAMICOM

Many won't have played Namco's game as it was released exclusively in Japan for the Famicom. It's loosely based on the original film and is the earliest example of a character being able to use force abilities in a *Star Wars* game. Ostensibly a platformer, Luke climbs and jumps his way around levels using said force abilities and his trusty lightsaber, cleaving up enemies as he goes. While there are some cool first-person battles in the Millennium Falcon and Luke's X-Wing, it's all ruined by a stupidly high difficulty level.



STAR WARS DROIDS 1988

VARIOUS

Visually, this 8-bit adaptation of the cartoon show was great, easily capturing its cute style. Sadly the actual gameplay wasn't up to the same standard (although, let's face it, any game based around the adventures of C3-PO is always going to have an uphill struggle). *Droids*' gameplay consists of the two robot buddies navigating eight levels by accessing lifts and triggering Simon-style passwords. Needless to say it's exciting as it sounds and gets boring incredibly quickly.







STAR WARS 1991

NES, VARIOUS

Another *Star Wars* Famicom game, but this one actually reached the west. This is an interesting effort that features overhead Land Speeder stages, side-on platforming and the odd first-person section. Characters can switch between Luke, Leia and Han, but only Luke has infinite lives. It sounds decent, although the actual graphics are rather dinky. Interestingly, the Game Gear version has exclusive levels not found on the other consoles.

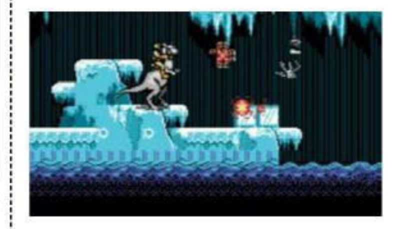


"IT IS THE EARLIEST EXAMPLE OF A CHARACTER BEING ABLE TO USE FORCE ABILITIES"

STAR WARS: THE EMPIRE STRIKES BACK 1992

NES, GAME BOY

This sequel followed on from *Star Wars*, but only reached the NES and Game Boy, with the Master System and Game Gear losing out. You only play as Luke, but your force powers are greatly expanded. It retains the same variety as *Star War*, but with greatly refined controls. Sadly, as the NES was slowing down in popularity *Return Of The Jedi* never appeared.





SUPER STAR WARS 1992

SNES

Recently released on PS4 and Vita, *Super Star Wars* had everything. You could play as Luke, Han or Chewie, the graphics were excellent with some insane Mode 7 effects, while the music was absolutely superb. While mainly a run-and-gun it threw in the odd Mode 7 level and included the now famous trench run.



STAR WARS: REBEL ASSAULT 1993

PC, VARIOUS

Rebel Assault was a big deal at the time, being one of the first PC games to make extensive use of FMV. Its gameplay wasn't quite as impressive, however, as it's little more than a basic on-rails shooter that typically has you piloting a variety of different spaceships (although one level has you running around on foot). It's also notable for featuring plenty of new and completely forgettable characters.

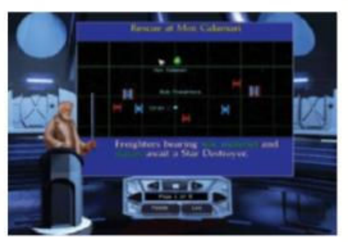
STAR WARS ARCADE 1993

ARCADE, 32X

Sega's first coin-op game was quality. Housed in a huge bespoke cabinet, it allowed one person to act as a pilot, while the other could handle the guns. Although there are only three different missions – shooting down TIE Fighters, destroying a Super Star Destroyer and navigating the trench – it's full of explosive set-pieces and never gets boring. An exclusive 32X port followed in 1994.







STAR WARS: X-WING 1993

PC, VARIOUS

Star Wars: X-Wing was the dramatic dog-fighting game that *Rebel Assault* should have been. It not only allowed you to fight against the Empire in a variety of Rebel ships, but like many other games authorised by LucasFilm, it was considered canon too. There's plenty of variety to the gameplay with the player participating in escort missions, vicious dogfights and deadly strikes against key Empire targets. Famed for its polygon graphics and excellent use of iMuse it became a smash hit, with several expansions.

SUPER STAR WARS: EMPIRE STRIKES BACK 1993

SNES

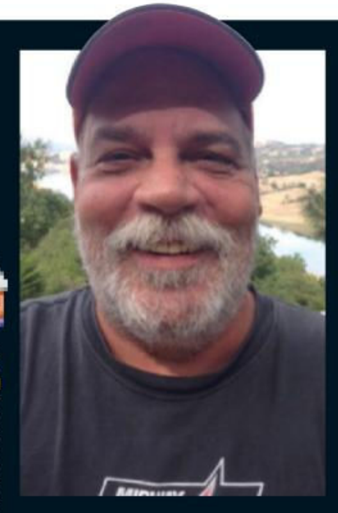
This Super Nintendo sequel features a number of subtle changes. Characters now have secondary and primary weapons, it's no longer possible to choose your hero at the start of the game and Luke can now block with his lightsaber and eventually use force powers. It still alternates between side-on run-and-gun stages and some neat Mode 7 stages (particularly the battle of Hoth) but the graphics have been greatly improved and some of the bosses look spectacular. Sadly, it's marred by a somewhat frustrating difficulty level.





MIKE HALLY INTERVIEW

The Star Wars co-creator on the classic arcade game



What was it like working on *Star Wars*?

It was the most intense project that I had ever been involved in, let alone being the project leader and game designer. Every single day was a battle of issues involving every department associated with *Star Wars*' development. From a team perspective, we were up against shared company resources, along with trying to create the impossible. New technology, a game worthy of the *Star Wars* name and a product that would out-earn any other game of the time were just some of the daily pressures we faced. And let's not forget the creation of a brand new controller, voice and music to the mix?

Was Lucasfilm a stickler for detail?

From the initial meeting with the licensing group to all the follow-up meetings with the games department group there was one consistent theme that the Lucasfilm groups had… they were all very protective of the *Star Wars* universe and every detail had to be accurate. If I had any element that was not accurate, they instantly made me aware and it had to be changed. Since they were also involved in game development, they did understand some of the decisions that I made.

Was there much pressure?

Oh it never stopped. There were two main areas of extreme pressure. One was from the company and their need for this game to get finished and be a huge success, while the other was internal pressure from within the team to be a part of something special and make a name for ourselves. I think every development team at Atari was under a lot of pressure to perform and create magic, but the *Star Wars* coin-op was a new and different venture for us so it just magnified the expectations everyone had.

Why vector graphics?

We ended up going with vector graphics because Atari felt that they were best suited to *Star Wars*' development and what it required based on the original game designs. It was one of the first three-dimensional games and at the time it was the only display that we had access to that had a chance of pulling off what we wanted to achieve. At this time in the evolution of videogames almost every coin-operated game had its own custom hardware to maximise the needs for the specific requirements of the game.

Why was it so popular?

Star Wars captured the essence of one of the greatest properties ever created for the big screen and beyond. It allowed someone to become Luke Skywalker and play an interactive role just like what people viewed on the big screen. It had just the right mix of all the elements it takes to make a winner… For me, it's a true timeless piece of history and art.

STAR WARS CHESS 1993

PC, MEGA CD



We'd love to say that this is a stunningly innovative take on the ancient board game, but we would be lying, sadly. It's nothing more than a simple adaptation of *Chess*, but it is clearly better because it's *Star Wars Chess*. All this really means is that famous characters take the place of the playing pieces of the game, but now come with rather swish attack animations.

SUPER RETURN OF THE JEDI 1994

SNES

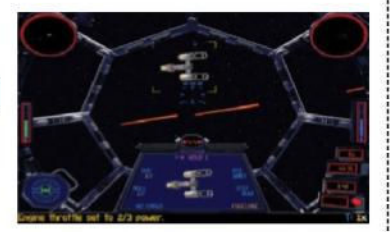
The last *Star Wars* SNES game once again features the ability to choose your character at the start of each level. It does however, limit the number of force powers Luke has access to and starts off with a really naff Mode 7 racing stage. Get past this however and you'll find a fun, if rather pedestrian game.





STAR WARS: TIE FIGHTER 1994

PC, MAC

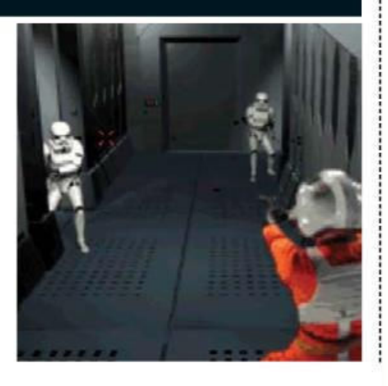




The follow-up to *X-Wing* allowed you to play as the Imperials. While it adds useful new mechanics such as a far better targeting system and the ability to access mission objectives in-game (far more useful than it sounds) it greatly enhances the overall gameplay by adding far better missions and some truly epic battles. As with *X-Wing* it was followed by an expansion, the rather spiffy *Defender Of The Empire*.

STAR WARS: REBEL ASSAULT II: THE HIDDEN EMPIRE 1995

PC, MAC, PLAYSTATION



While the FMV was greatly improved, everything else about *The Hidden Empire* was pretty poor. The gameplay was still incredibly simplistic (although clever techniques do give the impression that you have more control) while the acting throughout is incredibly weak. The actual plot does manage to be fairly involving, but the twitchy controls and monotonous gameplay make it a surprisingly dull blaster.

CREATING SUPER STAR WARS

Kalani Streicher recalls the creation of a SNES classic

Why make it a run-and-gun?

I was a big fan of platform games and side-scrollers, *Contra*, *Super Castlevania*, *Turrican* and *Mega Man* on SNES were my favourite games. I was also playing the Willow arcade game, which inspired me to push the visual quality on the SNES above other games. I wanted it to be as good a side-scroller as *Contra* or *Castlevania*, with the visual quality of arcade games such as *Willow* or *Street Fighter*, and vehicle gameplay using Mode 7 as seen in *F-Zero*.

Why did you add different gameplay perspectives?

I wanted to allow players to interact with their favourite *Star Wars* vehicles in third or first-person perspective, and experience the different aspects they'd seen in the movies. I didn't want to utilise the vehicles in a side-scrolling or top-down fashion. I wanted the player to feel like they were in the vehicle racing across the desert or through the galaxy.

Did you study the original film?

I looked at every aspect of the movie in detail with the team and pointed out the environments and characters I wanted in the game. We used reference materials and photos from Lucasfilm's photo library, and took reference pictures of the actual movie models from the Lucas Archives. Everybody on the team was a hardcore *Star Wars* fan. I was also producing the X-Wing game at the same time, which added even more extensive research of every spacecraft and ship in the game. I was heavily entrenched in getting the authenticity of the *Star Wars* universe into these games.

How much control were you given?

We were in control of all creative aspects of the game such as game design, art and animation, and Sculptured was responsible for coding the game. Sculptured had a great engine, tools and development kits that allowed us to rapidly create levels and character animation. [Lead programmer] Peter Ward at Sculptured was an incredible engineer and a true *Star Wars* fan. I had such a blast working with him. Initially I created a design document outlining all specification and progression of the levels, characters and vehicles from the first to last level. We then did storyboards for the plot progression, cinematics and story panels. My concept and art lead Harrison Fong storyboarded a lot of them, which we then passed on to the team and converted it into digital artwork.

Tell us about the Mode 7 stages…

It was our first attempt to utilise Mode 7 in a different way than other games. The landspeeder stage had to show progression, moving across a desert towards the mountains in the distance. It was a fine balance of sprite usage for the terrain, enemy characters and distant parallaxing of the mountain range. We had to take that one step further with the X-Wing level, flying across the surface and then down the trench allowing the player to be able to move anywhere in space. And lastly integrating the Millenium Falcon took several iterations. It is such a unique ship that we fairly quickly ran out of sprites/tiles. We had to pull off every trick we had in the book for those sections.

STAR WARS: DARK FORCES 1995

PC, PLAYSTATION

This revolutionary FPS is so much more than just a *Doom* clone. In addition to featuring a genuine cinematic story (a first for the genre) it also allowed you to look up and down, jump or duck and added useful items that enhanced the gameplay. Luke Skywalker was originally going to be the protagonist, but a new hero Kyle Katarn, was added instead.





STAR WARS: SHADOW OF THE EMPIRE 1996

N64

Shadow Of The Empire kicks off with an excellent and familiar Hoth level, but soon jumps into exciting new *Star Wars* territory. While the camera isn't perfect, *Shadow Of The Empire* remains a solid third-person action game thanks to some intelligent level design, great boss fights and a genuinely good story. Oh and newcomer Dash Rendar is rather brilliant too.





STAR WARS: MASTERS OF TERAS KESAI 1997

PLAYSTATION

This PlayStation exclusive sounds like a fantastic idea, until you actually start playing it. While *Masters Of Teras Kesai* features an in-depth story that involves the Emperor being angry with Luke Skywalker about something or other, it's generally an excuse for lots of famous characters to kick the hell out of each other. Luke Skywalker, Han Solo, Chewbacca and a scantily clad Princess Leia are all present and correct and all lumber around like they're in the advance stages of arthritis, due to the naff animation that's on display. Even the addition of Boba Fett, Darth Vader and book favourite, Mara Jade, can't make the game cool and it ends up feeling incredibly tired due to its boring special moves, overall clunky controls and tough difficulty level.

STAR WARS: X-WING VS TIE FIGHTER 1997

PC

This solid follow-up to TIE Fighter added greatly improved options for multiplayer gameplay, but dropped the popular campaign mode that made the earlier games so fun. Up to eight players could play at once, in a variety of gameplay modes, including standard free-for-alls and team-based events. Graphically it was superb for its time too, greatly improving on the engine featured in the earlier games. It was succeeded seven months later by the expansion Balance Of Power, which added a super campaign mode.



> "WE'LL SAY THIS QUIETLY, BUT THIS IS BASICALLY THE BEST STAR WARS ARCADE GAME"





STAR WARS: YODA STORIES 1997

PC, MAC, GAME BOY COLOR

The gameplay of *Yoda Stories* is ridiculously basic, but we still find it enjoyable. It's essentially *Indiana Jones And His Desktop Adventures*, but with a *Star Wars* spin. Levels are procedurally generated and consist of Luke navigating each screen to find Yoda. Once discovered, Yoda gives Luke a variety of tasks to complete. An adaptation was released for Game Boy Color in 1999.

STAR WARS JEDI KNIGHT: DARK FORCES II 1997

PC

Everything about *Dark Forces*' sequel was suitably epic. It boasted an excellent new multiplayer mode, allowed for 3D acceleration-based graphics cards, the choice between first and third-person perspectives as well as the ability to use a lightsaber and Jedi force powers. While the force powers are fun (particularly in multiplayer mode) its the excellent lightsaber battles that make *Dark Forces II* so memorable.



STAR WARS TRILOGY ARCADE 1998

ARCADE



We'll say this quietly, but this is basically the best *Star Wars* arcade game. It features plenty of variety in its many missions and has incredible looking visuals to boot. Levels range from flying across the Death Star's surface to escaping Echo Base and racing around on Speeder Bikes, while its exciting bonus stages have you battling Darth Vader and Boba Fett.

DARON STINNETT

A brief look at Star Wars: Dark Forces



What was the design ethos behind the games?
We were focused on creating a game that allowed players to explore *Star Wars* environments in 3D for the first time. We felt like *Dark Forces* was an incredible opportunity to build what we all imagined lay beyond the sets created for the movie and bring those environments, characters, and stories to life and make the player feel like they were part of discovering it. So we knew that we needed strong characters and story. And we were also very focused on creating environments that felt as real as was possible given the tools and technology that was available at the time.

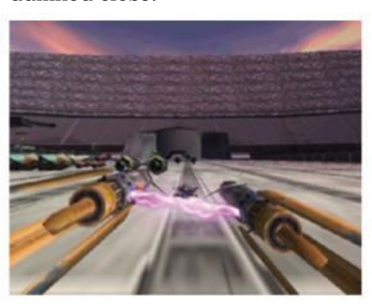
Did this change at all during development?
It didn't. We started with a vision of creating a game that was a fun and compelling exploration of *Star Wars* locations and giving the player the chance to become part of the *Star Wars* story and we stuck to it. I remember when the game was nearing completion and the president of LucasArts asked me if I wanted any more time to add anything more to *Dark Forces* and I said "no". I felt like we had realised our vision for the game and I did not feel like adding anything more would make it any better.

How did it feel to be involved with a Star Wars title? Was it a series that you had much love for beforehand?
It was awesome! It felt like I was transported to this amazing fantasy working environment. Where outside my window ILM might be crashing and blowing up jumbo jets (this was before they did that kind of thing with CG). And our offices where literally stacked with famous props from the movies that today are in museums. We frequently had lunch at the Ranch right next to George, and we felt like we were solving problems that no one had solved before. It was a fantastic experience and one of the highlights of my career.

STAR WARS EPISODE 1: RACER 1999

PC, VARIOUS

This is one of the best racing games on the N64. Based on one of the best sequences from *The Phantom Menace*, it features challenging AI racers, truly excellent track design, superb ship handling and even utilises the N64's expansion pack. It's easily the best *Star Wars* racing game, although Sega's coin-op *Star Wars: Racer Arcade* comes pretty damned close.









STAR WARS ROGUE SQUADRON II: ROGUE LEADER 2001

GAMECUBE

While the N64 and PC predecessor was good, *Rogue Leader* was *soooo* much better. It features superlative visuals that helped sell plenty of GameCubes and a large number of fantastically designed missions. There's lots of ships to pilot and plenty of great unlockables to discover, including five bonus levels. While the third game was less impressive, it did allow you to play all of *Rogue Leader*'s levels in co-op mode.





STAR WARS: GALACTIC BATTLEGROUNDS 2001

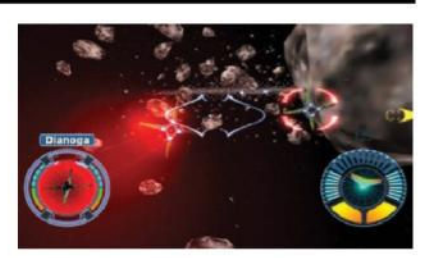
PC, MAC

Considering that the films feature so many giant battles, it's rather surprising that it took so long to produce a *Star Wars* RTS. Collaboration between LucasArts and Ensemble Studios, *Galactic Battlegrounds* utilises the Genie engine that was also used to power *Age Of Empires I* and *II*. One interesting aspect of *Galactic Battlegrounds* is that victory can be achieved in several ways, as opposed to simply wiping out the opposing team (although this of course remains an option too). An expansion pack, *Star Wars: Galactic Battlegrounds Clone Campaigns* was released in 2003.

STAR WARS: STARFIGHTER 2001

VARIOUS

The best way to describe *Starfighter* is as *Rogue Squadron* with a Naboo-based skin. It's a solid enough action game, with the play taking part in a variety of missions whilst flying around in a number of different ships. An upgraded version of the game was released for Xbox and featured greatly enhanced graphics along with a superior expanded multiplayer mode.





STAR WARS: THE CLONE WARS 2002

VARIOUS

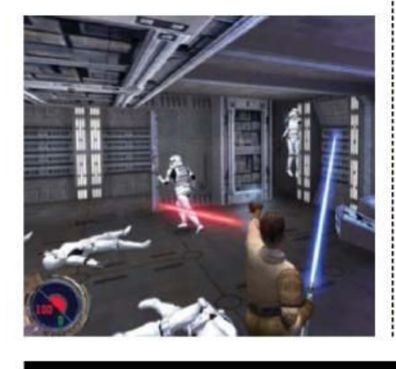
This was the first of several *Star Wars* games by Pandemic Studios and it's not bad at all. While there are a few levels that focus on Anakin Skywalker and Mace Windu, it's predominantly a vehicular-based action game. The handling throughout is very solid and there's a great number of vehicles to use. Oh, and the multiplayer mode is rather decent too.



STAR WARS JEDI KNIGHT II: JEDI OUTCAST 2002

VARIOUS

Utilising the *Quake III* engine, *Jedi Knight II: Jedi Outcast* features greatly enhanced lightsabre duels and continues to push the multiplayer mode that debuted in *Jedi Knight*. The Xbox and GameCube versions, coded by Vicarious Visions, aren't as polished as the PC port, but are still perfectly entertaining third-person adventures.





STAR WARS: KNIGHTS OF THE OLD REPUBLIC 2003

VARIOUS

BioWare's decision to separate its *Star Wars* game from the films by 4,000 odd years was a fantastic decision. It effortlessly introduces new characters and events, whilst giving everything an air of familiarity. It features a host of memorable playable characters and introduces many of the ingredients that would shape the company's later games. The story has plenty of clever twists and turns, while the combat throughout (based on the D20 rules system) is superb.

STAR WARS GALAXIES 2003

PC

This was the first attempt at a *Star Wars* MMORPG, and it proved very successful. The original game introduced 10 characters classes, ten professions and ten planets. The planets were roughly 225square kilometres in size, although those of later expansions were typically smaller. Due to its popularity, three expansions followed: *Jump To Lightspeed*, *Rage Of The Wookies* and *Trials Of Obi-Wan*. It also introduced a trading card game, but the servers were sadly shut down in 2011.



STAR WARS: BATTLEFRONT 2004

VARIOUS

Battlefront was Pandemic's answer to the popular *Battlefield* series. It's incredibly authentic and features superb aesthetics, but is let down by its lack of a proper single player campaign. The conquest-based battles take place on a variety of popular planets and players could use both land and air-based vehicles. Characters from the films, including Darth Vader and Luke Skywalker can fight alongside you too, giving *Battlefront* a truly epic feel.





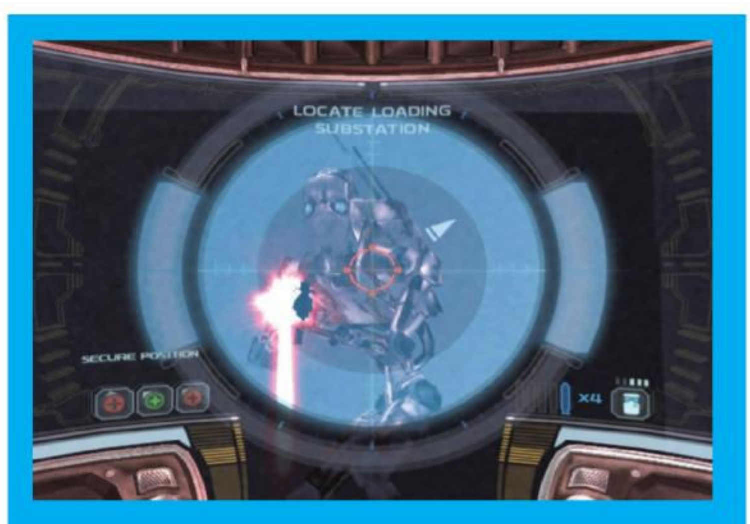




LEGO STAR WARS: THE VIDEO GAME 2005

VARIOUS

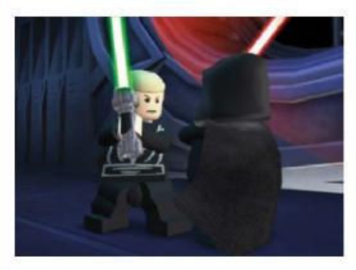
This was the first of many LEGO games from Traveller's Tales. It introduces many mechanics that would become key components of the series going forward, including stud collecting, the switching of characters to solve puzzles and co-operative gameplay. While a decent start to the series it was let down by some truly dire vehicle sections that were a chore to play.



STAR WARS REPUBLIC COMMANDO 2005

XBOX, PC, MOBILE

This is effectively a *Star Wars* take on *Rainbow Six* and *Ghost Recon*, with the player controlling a squad of commandos. The gameplay is solid with easy-to-use squad activations and there's a lot of variety in the game's missions. It's also notable for being the first *Star Wars* game to feature licensed music.





LEGO STAR WARS: THE ORIGINAL TRILOGY 2006

VARIOUS

The second LEGO game from Traveller's Tales was far better than the original, and not just because it's based on the superior original films. The puzzles and interacting with characters are better and more frequent. The vehicle levels feel far less clunky, while there are even more things to collect. The Mos Eisley Cantina acts as a hub where players can unlock new levels and buy over 50 different characters. They generally have more abilities than they did in the original game.



STAR WARS: EMPIRE AT WAR 2006

PC, MAC

This excellent RTS takes place in real time and features three distinctive modes. Galactic Conquest is a huge open-ended sandbox campaign where you can play as the Empire of Rebels. Skirmish Mode plays out like a more traditional RTS, while the story-based Campaign Mode is set before and during the Battle Of Yavin. An expansion, *Forces Of Corruption* was also released.

STAR WARS: THE FORCE UNLEASHED 2008

VARIOUS

This third-person action game has some of the most spectacular use of force powers ever seen, allowing you to pull down a Star Destroyer at one point. While it's let down by some fiddly QTE sections and some generally weak bosses, the insane amount of power you have at your fingertips more than makes up for it. Avoid the terrible sequel though.



STAR WARS: THE CLONE WARS – LIGHTSABER DUELS 2008

WII

While using a Wii Remote as a lightsaber is blindingly obvious, it couldn't help developer Krome Studios make a good game. As with *Soul Calibur Legends* the fighting always feels flaky and imprecise and you never feel fully in control of your actions. A disappointingly bland fighter.









STAR WARS: THE OLD REPUBLIC 2011

PC

BioWare's own stab at the MMORPG is a far better attempt than Sony's, currently boasts a million live subscribers and is still running today. Players are able to become members of either the Sith Empire or Galactic Empire, choose from a number of different races and have access to numerous classes. Moral choices can affect gameplay, while players can permanently open and close storylines. It's currently supported by five expansions, with a level cap of 65.



ANGRY BIRDS STAR WARS 2012

IOS, VARIOUS

This is essentially a mash-up of Angry Birds and Angry Birds Space. It uses the classic *Angry Birds* formulae but gives many of the existing birds brand new abilities to use, which unlock as you make your way through the different planets. The Millennium Falcon replaces the Mighty Eagle of earlier games and can also be rewarded once a set number of stars are earned. A sequel followed in 2013.



KINECT STAR WARS 2012

XBOX 360

Despite some truly interesting gameplay modes that range from podracing to having a dance off in Jabba The Hutt's palace, *Kinect Star Wars* is a mess. While it looks wonderful and has some neat ideas (who doesn't want to run amok as a rancor?) it's let down by incredibly imprecise controls that make its five stages a chore to play.

STAR WARS PINBALL 2013

VARIOUS

Zen Studios has released a number of excellent pinball tables for both Zen Pinball and Pinball FX. *Star Wars Pinball* included a table based around *The Clone Wars* and *The Empire Strikes Back*, as well as the popular bounty hunter Boba Fett. Balance Of The Force followed the same year and added three more tables, while *Heroes Of The Force* was released in 2014 and added four more. Two additional tables have been released to tie in with *The Force Awakens*.





STAR WARS: GALAXY OF HEROES 2015

IOS, ANDROID

Assemble a squad of heroes and take on other players and a rather lengthy campaign. While *Galaxy Of Heroes* has some surprisingly absorbing gameplay and plenty of classic characters to unlock, most of the good content is behind some very steep micro transactions. If you don't mind grinding however, you'll find it to be a surprisingly diverting timewaster.





DISNEY INFINITY 3.0 2015

VARIOUS

After its disappointing jaunt in the Marvel universe, Disney's third *Infinity* game was far more rewarding and has been supplemented by some brilliant models. In addition to featuring a far more intuitive sandbox for creating new games in the Toybox mode, the three *Star Wars* playsets that are available are far more entertaining with more interesting and varied missions.



STAR WARS BATTLEPOD 2015

ARCADE

Namco Bandai's first arcade blaster is superb, and plays like a hypercharged version of Sega's *Star Wars Trilogy Arcade*. It's a hectic on-rails shooter that's based on the first three films, but also features a new level where you play as Darth Vader after his defeat at the end of *A New Hope*.

STAR WARS BATTLEFRONT 2015

VARIOUS

A *Battlefront* game by DICE sounds sublime, but the reality is that this is a weak adaptation of the earlier *Battlefront* game that is low on gameplay modes and decent maps. The free content that has appeared is welcome and the aesthetics are incredible, but DICE is going to have to work a lot harder with any planned sequel.



EVEN MORE STAR WARS

In case you still need things to play...

- STAR WARS REBELLION (1998)
- STAR WARS: ROGUE SQUADRON (1998)
- STAR WARS MILLENNIUM FALCON CD-ROM PLAYSET (1998)
- STAR WARS: YODA'S CHALLENGE (1999)
- STAR WARS EPISODE 1: THE GUNGAN FRONTIER (1999)
- STAR WARS: EPISODE 1 – THE PHANTOM MENACE (1999)
- STAR WARS: DROID WORKS (1999)
- STAR WARS: DEMOLITION (2000)
- STAR WARS: RACER ARCADE (2000)
- STAR WARS: ANAKIN'S SPEEDWAY (2000)
- STAR WARS EPISODE 1: JEDI POWER BATTLES (2000)
- STAR WARS EPISODE 1: BATTLE FOR NABOO (2000)
- STAR WARS: OBI-WAN (2001)
- STAR WARS: THE CLONE WARS (2002)
- STAR WARS: BOUNTY HUNTER (2002)
- STAR WARS RACER REVENGE (2002)
- STAR WARS: THE NEW DROID ARMY (2002)
- STAR WARS: JEDI STARFIGHTER (2002)
- STAR WARS ROGUE SQUADRON III: REBEL STRIKE (2003)
- STAR WARS: FLIGHT OF THE FALCON (2003)
- STAR WARS JEDI KNIGHT: JEDI ACADEMY (2003)
- STAR WARS TRILOGY: APPRENTICE OF THE FORCE (2004)
- STAR WARS: BATTLEFRONT MOBILE (2005)
- STAR WARS: EPISODE III – REVENGE OF THE SITH (2005)
- STAR WARS: JEDI ASSASSIN (2005)
- STAR WARS: LIGHTSABER COMBAT (2005)
- STAR WARS: REPUBLIC COMMANDO: ORDER 66 (2005)
- STAR WARS: KNIGHTS OF THE OLD REPUBLIC II: THE SITH LORDS (2005)
- STAR WARS: PUZZLE BLASTER (2005)
- STAR WARS: BATTLEFRONT II (2005)
- STAR WARS: LETHAL ALLIANCE (2006)
- STAR WARS BATTLEFRONT: RENEGADE SQUADRON (2007)
- STAR WARS: THE CLONE WARS – JEDI ALLIANCE (2008)
- STAR WARS: JEDI READING (2008)
- STAR WARS: LIVE FIRE (2008)
- STAR WARS: JEDI MATH (2008)
- STAR WARS: THE CLONE WARS – REPUBLIC HEROES (2009)
- STAR WARS: TRENCH RUN (2009)
- STAR WARS: JEDI TRIALS (2009)
- STAR WARS: FALCON GUNNER (2010)
- STAR WARS: BATTLE OF HOTH (2010)
- STAR WARS: THE FORCE UNLEASHED II (2010)

GAME CHANGERS

CRASH BANDICOOT

Released: 31 August 1996 **Publisher:** Sony Computer Entertainment **Developer:** Naughty Dog **System:** PlayStation



Crash Bandicoot has sold over 6.8 million units – making it one of the best selling PlayStation games of all time, establishing Crash himself as one of Sony's iconic characters.

The platformer that showed off the potential of the Sony PlayStation at an early age is the same game that put Naughty Dog on the industry's map. Getting Crash from concept to release was no easy task, but it paid dividends for Sony, Universal and everyone else involved in Naughty Dog's passion project…

CRASH BANDICOOT WENT on a long journey before making it to the forefront of the PlayStation's exemplary early-life line-up – when Naughty Dog moved onto the game, it wasn't even set in stone as a PlayStation release; the developer flirted with 3DO, Atari Jaguar and Sega Saturn as a viable release platform for the game before settling on Sony's PlayStation… purely because of how streamlined the development units were, and how 'sexy' the advertising campaign had made the machine look early in its life.

So by 1994, Naughty Dog had approached Universal Interactive Studios, set up shop in the publisher's backlot, and began to work on a character that would be a mascot for the blossoming PlayStation console: Sega had managed to propel Sonic to mascot status early in the Mega Drive's lifespan, and Mario had been doing the rounds for Nintendo for over a decade at this point. Naughty Dog noted this, and took design notes from characters that existed before and amalgamated them into Crash's earliest form: Willie the Wombat.

Once the character was in place, Naughty Dog would begin the most important development cycle the PlayStation would see in its early life – *Crash Bandicoot* didn't just solve coding/hardware problems related to its game, it also managed to figure out shortcuts and 'hacks' in the PlayStation's infrastructure that would be passed on to other developers, allowing them to extract even more power from the fledgling system.

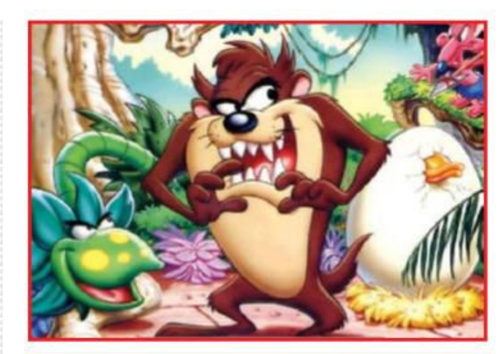
THE ANATOMY OF CRASH BANDICOOT

CRASH BANDICOOT WAS A WATERSHED MOMENT FOR PLATFORM GAMING, AND STARTED A RICH CULTURE OF GAMES BASED ON THAT 2.5D/3D TEMPLATE… BUT WHAT INSPIRED IT IN THE FIRST PLACE?



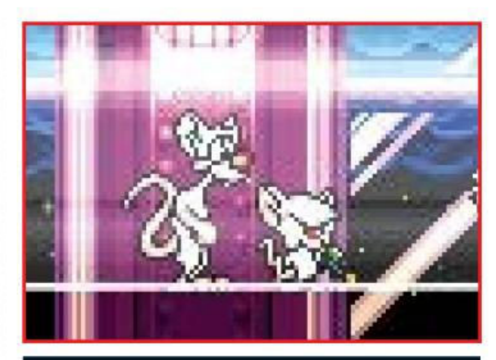
SONIC THE HEDGEHOG

★ The *Sonic* template was studied closely when making *Crash*, but Naughty Dog wanted to move the camera behind the main character rather than have it side-on.



TASMANIAN ANIMALS

★ When researching mascot characters, one of the artists bought in a field guide to Tasmanian animals – Crash Bandicoot could easily have been a wombat.



PINKY AND THE BRAIN

★ Main antagonist Neo Cortex was to be a 'more malevolent' Brain in the game, obsessed with minions, with N. Brio acting more like Pinky.

It all started out when design veterans Joe Pearson and Charles Zembillas were brought in to design the characters and the world, opting for smooth, squash-and-stretch-style animations that would riff off the Looney Tunes art direction. *Crash Bandicoot* was one of the first games on the market to apply 'soft-body animations' to gaming – and it was all based on the Disney-produced theory book *The Illusion Of Life*. Many games would follow Naughty Dog's lead with this kind of animation – the studio was a trail-blazer.

Initially, the game was going to utilise a full 3D camera, but Andy Gavin and Dave Baggett (the only two programmers on the whole project!) soon ran into hardware limitations, and so Crash's iconic 3D pathways were chosen as level templates instead. This meant that Crash was always kept on a 'spline', and that the PSOne could calculate *exactly* what would be shown on-screen at any one time – in the first *Crash Bandicoot*, this was only 900 polygons at any one time.

As such, the team managed to cram several hundred thousand environment meshes into the level, but only render a handful of them at any one time… a 'cheat' that allowed Crash to look so good, so vibrant, so *rich*, despite its 1996 release. Because of the way the camera followed Crash in a third-person view – a reinterpretation of the classic platformers that launched Nintendo and Sega consoles – the game was widely referred to as 'Sonic's Ass Game' until the name *Crash Bandicoot* stuck, fairly late on in development.

THE GAME WAS WIDELY REFERRED TO AS 'SONIC'S ASS GAME' UNTIL THE NAME CRASH BANDICOOT STUCK

KEY FACTS

■ Dr. Neo Cortex was invented as the design team were served a 'mediocre' Italian meal from a waiter with a large head…

■ Naughty Dog paid over $35,000 for its first PlayStation development kit!

■ The composer of the game's OST – Josh Mancell – has cited Aphex Twin as an influence for the game's chaotic, off-kilter soundtrack



■■■ To make sure the player would understand *exactly* where the orange-furred bandicoot was at all times, the design team gave Crash black gloves and dark shoes – allowing you to at least read his silhouette if he was washed out against the bright vistas the game was rendering. It was another smart move from the team, one that you'll see imitated in everything that came after, and helped Crash stick out against its only real genre competition at the time – *Donkey Kong Country.*

Strangely enough, one of the most famous elements of the *Crash Bandicoot* series – the mysterious 'wumpa fruit' – was added incredibly late on in development, when the team discovered that play-testers were solving the game's puzzles too quickly, and when focus groups complained of empty, wide-open spaces in the games visual language. Director Jason Rubin and programmer Andy Gavin took a Saturday in the workplace to texture, design and implement the fruit, as well as the crates they were found in (and a bonus TNT crate to make things just a *bit* more difficult).

All this iteration and attention to detail led to one of the most technically solid 3D platformers the world had seen, and it gave the PlayStation the mascot character it needed as Sony continued the relentless campaign to push the console into the homes of not just the players that were upgrading from the Mega Drive or SNES, but the general population… as such, *Crash Bandicoot* was a *lot* of now-adult gamer's introduction to videogames. And what an introduction to have.



GAME CHANGERS

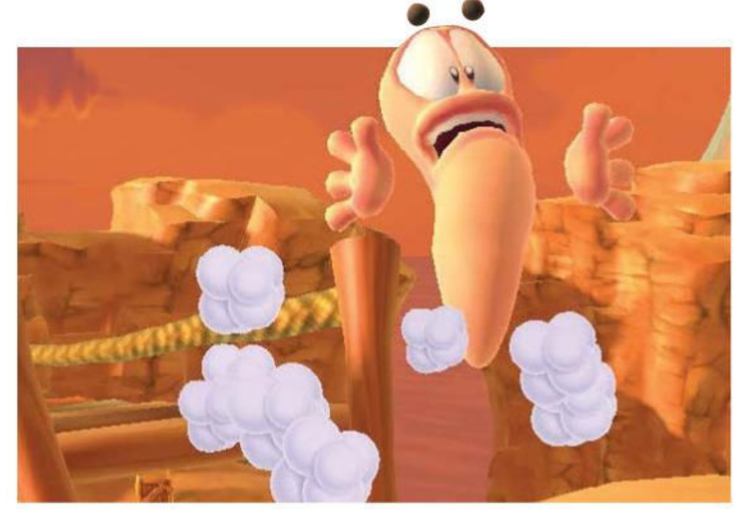
8 BRILLIANT COMEDY DEATHS IN GAMES

CRASH BANDICOOT BECAME WELL KNOWN FOR THE MYRIAD WAYS IN WHICH CRASH COULD PERISH – FLATTENED, DEFLATED, SQUASHED, GORED BY BOARS – BUT HE'S CERTAINLY NOT THE ONLY CHARACTER TO MEET HIS END COMICALLY…



EATING BOB THE GOLDFISH

EARTHWORM JIM 2 takes potshots at lots of gaming tropes. The best realisation of this is when you encounter Bob the Goldfish in the second game, and a full on *Mortal Kombat*-style lead-up to the battle makes you think this is going to be a harsh encounter… until Jim simply picks Bob out of his bowl and eats him.



PRODDED INTO OBLIVION

WE WERE DEBATING whether to include getting a 'home run' with a baseball bat, dropping a concrete donkey, flinging a sheep… but no. The best *Worms* death – in *every* game in the series – has to be the simple prod. A small poke to an enemy and seeing their face drop as they plunge into watery oblivion… So satisfying.



SHOOTING FACE MCSHOOTY IN THE FACE

■ APPEARING IN THE *Borderlands 2* mission titled 'Shoot This Guy In The Face', Face McShooty wants you to, well, shoot him. In the face. Shoot him anywhere else and he'll get quite aggressive, asking if you indeed even know what a face *is*.



ACCIDENTALLY KILLING A PATIENT

■ BLOATY HEADS, SLACK Tongues, Invisible Men, Uncommon Colds and Heaped Piles. Fail to treat these afflicted patients in *Theme Hospital* right and they'll die. That will upset your other patients and even cause the Grim Reaper to languidly appear from nowhere and summon the departed to walk with them to Hell.



SETTING YOUR SIMS ON FIRE

■ WE'RE ALL SADISTS, there's no point in denying it. That's why *The Sims* exists, right? Lock them in a room with nothing but clown portraits to look at until they die, put them in a pool and delete the stairs… Our personal favourite was always getting a big group of them together and putting a sofa *right* next to the fireplace…



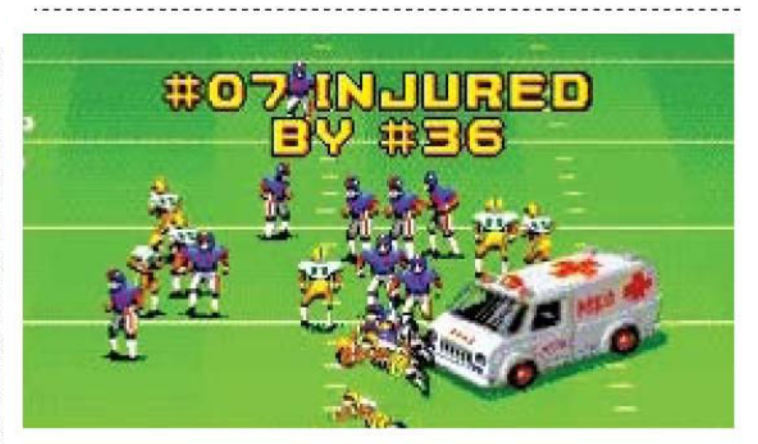
SHOOT THE LAKE

■ BEFORE ANY GUIDES came out for *Resident Evil 4*, the lake monster was a huge surprise. We simply wanted to stand on the pier in the lake and shoot some fish for the extra points, but no, we didn't realise that emptying a whole handgun into the lake would summon its gargantuan guardian, who pops out and swallows you whole.



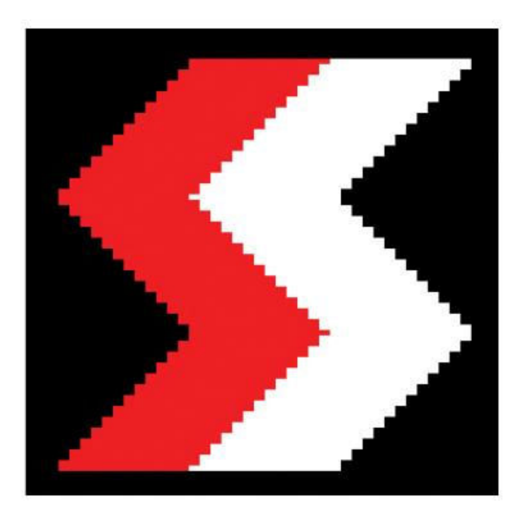
SPLATTING THE SPIDER

■ *SPIDER-MAN 3* WAS FULL of bugs, but it's the emotional scene in a burning building that provides this hilarious death. Screw up the QTE input at the last minute, and you'll faceplant the floor (with a *horrible* squishy animation) and the building explodes with you in it. It shouldn't be funny, but the bad graphics and general low quality makes it *so good*.



RUN OVER BY AN AMBULANCE

■ WHEN A PLAYER goes down injured in *John Madden Football '92*, for some utterly bizarre and unknown reason, an ambulance bursts onto the pitch and rushes to pick up the downed player… but on its way, it'll pretty much tear through any other player in its way, obliterating them en route. An ambulance that *kills people*. Amazing.









FROM HUMBLE ORIGINS TO **SUPERIOR SOFTWARE**

HOW £100 KICK-STARTED ONE OF THE GREATEST BBC MICRO AND ACORN ELECTRON PUBLISHERS OF ALL TIME

THE EIGHTIES IS held in reverence as a decade of great growth and development in the gaming industry, a time of genuine opportunity. Where modern blockbuster games are the result of hundreds of staff members working in large offices with multi-million pound budgets, in the early Eighties new developers and publishers could start-up with minimal investments and very limited teams.

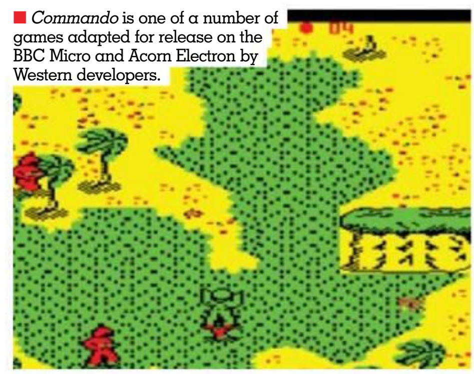
It was in this scene that now famed game developer and producer Richard Hanson founded Superior Software with John Dyson. "I'd graduated with a B.Sc. in computational science, I'd written a number of games that were sold by software publisher Program Power, and I had some knowledge of marketing and business management," Hanson shares with us. "I felt sure Superior Software would be an enjoyable, interesting enterprise." The cost for setting up this legendary company? "John Dyson and I each put £50 into the business, and this was the most that we would lose if the business had not taken off."

Being a time when a single-man developer could produce a complete game within a month, the talented duo of Hanson and Dyson quickly produced their first titles. "In autumn 1982, John and I coded Superior Software's first four games ready for publication: I wrote three of those games [*Space Fighter*, *Centibug*, and *Galaxy Birds*], and John wrote the other one [*Invaders*]." So far from the days of multi-million pound marketing campaigns, Hanson and Dyson invested their budget in the most traditional of advertising spaces: the press. "We initially placed a small black-and-white advertisement in one of the early home computer magazines – I think our first ad was in a magazine called Computing Today."

For the most part, those early games are not regarded as Superior Software's best. They did, however, prove to Hanson that success within the gaming industry was possible. "We were delighted by the response we received to our first advertisement – the level of sales covered the cost of the advertising several times over," says Hanson. "So we placed more advertisements, gradually increasing the size and taking more prominent positions in the magazines. We also started to invite other software developers to submit software to us for evaluation and possible marketing."



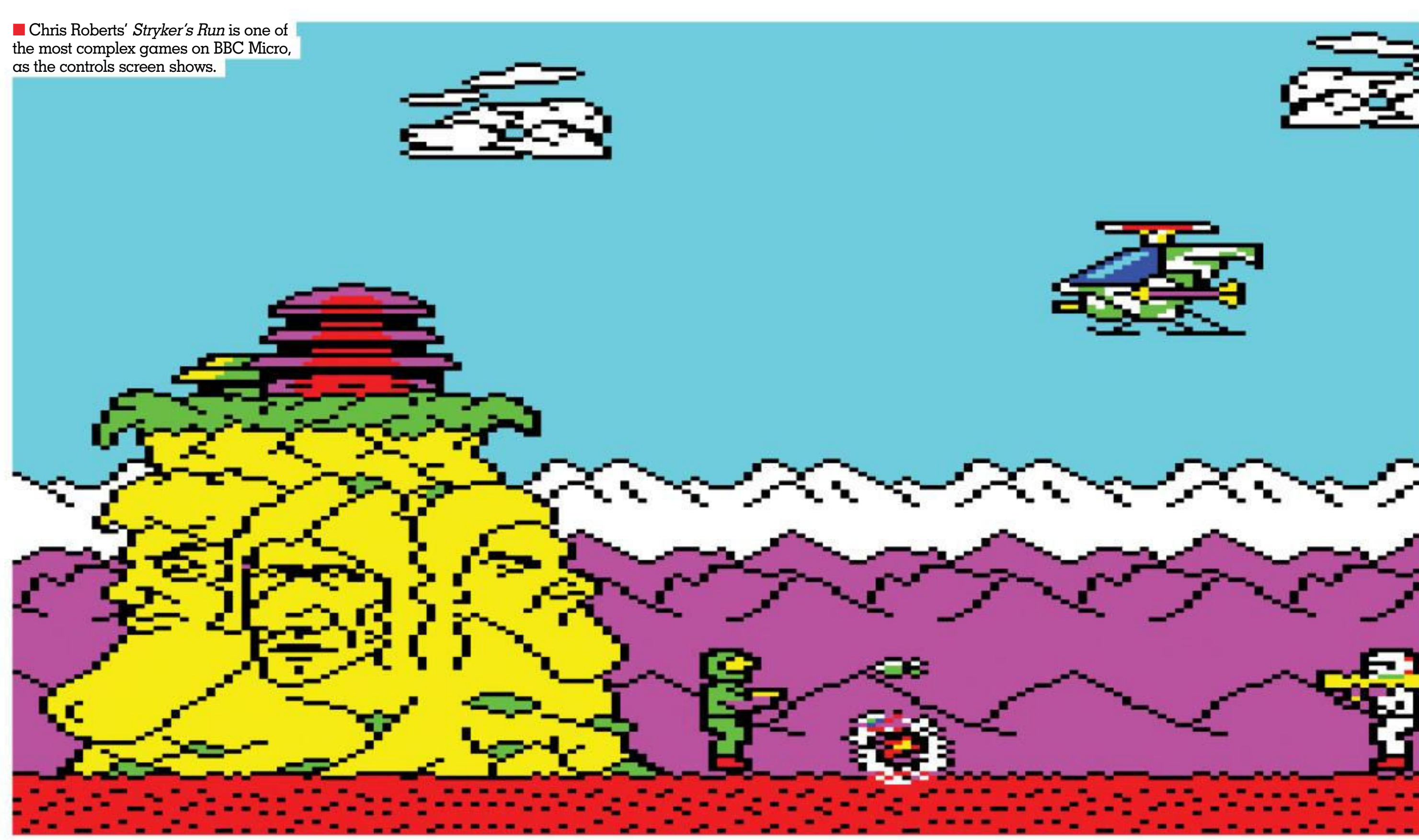
Many of those submissions came from enthusiastic university students, such as Peter Johnson, who had taught himself to program games while studying at university. "I took a HND Computer Studies course at Newcastle Polytechnic (now Northumbria University)," says Johnson [game designer for *Overdrive*]. "The coursework used COBOL and BASIC running on computer terminals and teletypes, and trained students to become systems analysts long before anyone would consider providing a dedicated games course at University." Johnson, however, was far keener to learn game design. "I had a BBC Micro, so I used the time I should have been studying to teach myself assembly language programming instead."



■ *Commando* is one of a number of games adapted for release on the BBC Micro and Acorn Electron by Western developers.

Johnson had created a BBC Micro version of classic arcade game *Q*bert*, and decided to send it out to publishers to test the waters. "I sent the game to around ten publishers only a day or two before my final exams – expecting not to hear anything for a while. Almost immediately I started getting replies and offers, so I'd rush home from exams every day to find out what was in the post." Johnson had different options

"IT WAS A MATTER OF WE DO BUSINESS WITH PEOPLE WE KNOW, LIKE AND TRUST"
Christopher John Payne



■ Chris Roberts' *Stryker's Run* is one of the most complex games on BBC Micro, as the controls screen shows.




Show-stoppers line up

Search is on for top games writer

With limited marketing budget the team would go direct to the press to get the word out on its games and staff needs.



Peter Johnson developed games such as *Overdrive*, *DeathStar* and *Space Pilot* for Superior Software.



Matthew Atkinson developed *Repton*, a game that is still seeing sequels made today.

available, but says "I chose Superior Software because it was run by Richard Hanson, who was a programmer himself with several games on the market. I figured that if I got stuck on a game in the future then at least he [unlike other publishers] would be able to help."

Johnson's *Q*bert*, however, was derailed when a disconcerting letter arrived in the post. "Within a week or so of launch we received a very scary letter from Columbia Pictures, who owned Gottlieb (the original manufacturers of the game) and were themselves owned by Coca Cola," says Johnson. "They threatened legal action unless we withdrew the game. Unsurprisingly, we withdrew it. But it convinced me that there was definitely a market for games, and I continued to work with Superior on many more titles."

The first of those titles, third-person arcade racer *Overdrive*, gave Superior Software one of their most important commercial successes. "I was working on another game at the time," Johnson recalls. "It was only when Richard Hanson told me I had to do it – as he had already printed the cassette covers – that I knuckled down and got on with it. It only took a week, as the game was all about spotting the gaps between the cars as you raced past them, and didn't push the BBC hardware very hard. It used colour-cycling to give a sense of movement from the trackside markers and grass, so only the cars needed to be moved and redrawn every frame." The result was critical acclaim and commercial triumph. "This was probably my most profitable week's work for many years," says Johnson.

Adding to Superior's commercial successes were such highly praised hits as Peter Johnson's *Deathstar* – which Roland Waddilove, writing for Electron User magazine, called "a super fast, all-action arcade classic… the sort of game you can't put down" – and *Hunchback*, of which Hanson himself says, "It's an engrossing game. At first it can seem quite tricky, but after practice and perseverance most players find it becomes much easier to progress through the various levels of the game." It's Johnson's *Overdrive*, however, that Hanson considers the most important of Superior Software's early games. "I'm not sure how many sales *Hunchback* achieved in total, but it was certainly a helpful stepping stone for Superior at the time. *Overdrive*, however, was even more important as a major sales success."

"SUPERIOR SOFTWARE CAN JUSTIFIABLY SAY THEY WERE THE BEST BBC MICRO AND ELECTRON GAMES COMPANY IN THE COUNTRY AT THAT TIME"
Matthew Atkinson

By 1984 Superior Software was producing some truly notable BBC Micro and Acorn Electron titles that were generating positive critical reception. Yet the future looked uncertain for the growing publisher and the company was in need of a commercial facelift and a marketing overhaul. It was then that Christopher John Payne, fresh from completing a degree in Business Studies at Leeds Poly, happened to bump into Hanson. "I bumped into Richard in the high street in Headingly in Leeds," says Payne [former marketing specialist for Superior Software]. "We got talking. He was saying that things were [challenging] in the games industry at the time. He was thinking of doing something different, like opening a record shop. 'Business is challenging at Superior', Richard said. 'I see it going downhill from here so I need to do something different.' So I came onboard and we shared an office together."

Payne saw weaknesses in Superior Software's marketing strategy. "Richard's advertising and packaging was very harsh and very angular – the logo was using Bauhaus typeface, and the illustrations we're unattractive." Payne had previously been working at competing games publisher Micro Power, and so had an inside view on what type of packaging and marketing was most successful in games at the time. "At Micro Power I had changed the packaging to a far more art-based style with an artistic looking title for the product, so there would be almost a 3D look to the artwork."



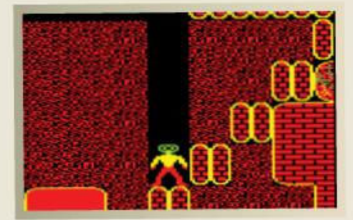
Building on the mechanics of *Quest* and *Citadel*, *Camelot* was originally part of a *Play it Again Sam 9* compilation.



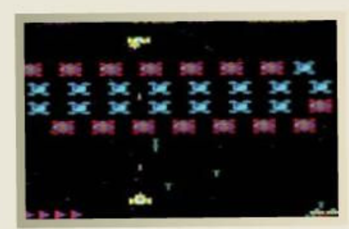
The 133 rooms of *Baron*'s castle were a bit of a chore to navigate, but the core concept wasn't so bad.

SUPERIOR SOFTWARE'S MOST IMPORTANT GAMES

Superior Software released many of the best BBC Micro and Electron games ever. Here's a look at some of its best works.



REPTON
by Tim Tyler (1985): Puzzle game by teen Tim Tyler that became Superior Software's most important game.



GALAFORCE
by Kevin Edwards (1986): A futuristic, arcade-style shoot 'em up game set in the distant 25th Century.



PALACE OF MAGIC
by Martyn R Howard (1987): Problem-solving game where you restore a character to its original size to teleport home.



OVERDRIVE
by Peter Johnson (1984): An arcade racing games that was one of Superior Software's first commercial successes.



CITADEL
by Michael Jakobsen (1985): Puzzle-platformer that utilised Speech to vocally pronounce the title.



STRYKER'S RUN
by Chris Roberts (1986): A trhilling 2D side-scrolling action game that takes place in a futuristic war.



BONECRUNCHER
by Andreas Kemnitz (1987): A tricky little puzzle game that cleverly utilises *Boulder Dash*-style mechanics.



ELITE
by David Braben & Ian Bell (1984): Classic space-trader and one of the first games to use wire-frame 3D graphics.



THRUST
by Jeremy Smith (1986): 2D platform-based shooter where players control a spaceship by rotating and thrusting.



RAVENSKULL
by Martin Edmondson and Nicholas Chamberlain (1986): Enter Castle Ravenskull to retrieve a stolen silver crucifix.



EXILE
by Peter Irvin and Jeremy Smith (1988): One of the most complex games on Micro, the first to use a physics engine.

Payne would redesign the logo and packaging for Superior Software and its games, and between the marketing know-how of Payne, the talent of independent game developers like Johnson, and Hanson's own leadership, it was clear that opportunity was knocking right on the door of Superior Software's office. Then, as luck would have it, there arrived through the post a package from a fifteen year old developer who happened to have created what would become perhaps the most important game Superior Software ever released. The developer was Tim Tyler. The game: *Repton*, a maze-based puzzler in which the protagonist hunts for diamonds in a maze while avoiding falling rocks and monsters.

"We were very pleased indeed to receive this software. It was clearly a beautifully designed, stimulating game," says Hanson. "We knew it was destined to do well." Payne shares similar sentiments. "[On receiving *Repton*] I thought 'Oh my gosh this is similar to *Boulder Dash* [Atari's classic arcade puzzler]'. I thought it would be a real hit."

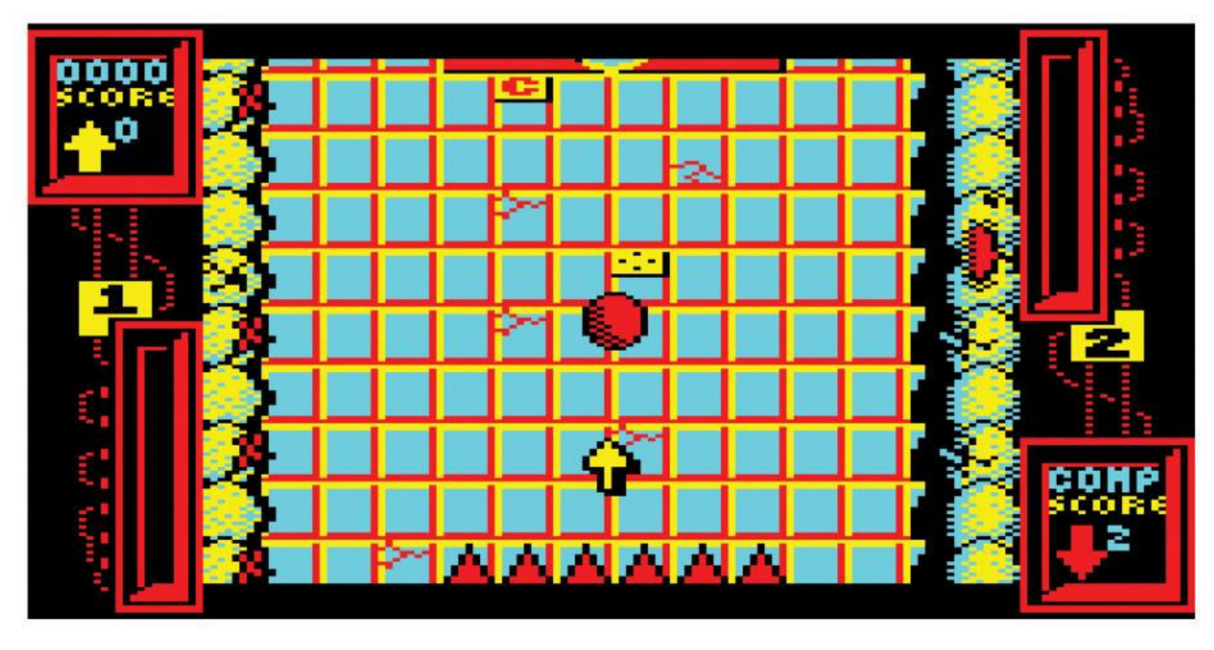
Being such a well designed game, the team at Superior Software changed very little of the program Tim Tyler sent them. "I brought in Mike Ellis [an artist Payne had worked with at Micro Power] and showed him the sort of illustrations I was looking for," says Payne. "He produced a really nice piece of art to go with it. We gave it a spit and polish, but only changed about five to ten percent."

With beautiful packaging and scintillating game design, *Repton* would become one of the biggest commercial successes on the BBC Micro and Acorn Electron, and would spawn multiple sequels on a variety of platforms. Amazingly, those sequels – which span thirty-one years – have undergone only the most minimal of changes, most notably with the inclusion of a level designer in *Repton 3* – "I suggested to Richard to put in a level designer, and that really made the difference because people could create their own levels for players to solve," says Payne.

It is testament to Tim Tyler's original design that the core gameplay of *Repton* remains the same even today, and that Superior Software continues to develop and sell new versions of *Repton* on their website **SuperiorInteractive.com**. As Hanson makes clear, the contribution of one talented fifteen year old developer, Tim



■ The Acorn Electron was the best selling Micro in the UK, besting its sibling, the BBC Micro.



HOW SUPERIOR SOFTWARE GOT HOLD OF SO MANY GREAT GAMES

Superior Software received submissions from many of the best game developers of the Eighties. Here's how.

The gaming industry in the Eighties was very different to how it is today. Where today talented programmers and designers are headhunted every day by developers and publishers, back in the Eighties most talented developers were sitting at home writing line after line of code to create their own games. The likes of Matthew Atkinson and Peter Johnson had written several games at home that were just waiting to be picked up.

Superior Software took advantage of the situation by directly asking "Can You Write Games?"

As Chris Payne states, "[I wrote a] "Can You Write Games" advert… I had a sequence of cartoon drawings of people writing at home and eventually [having their work] turned into a bestselling game. I encouraged people to write in and get a copy of a booklet that I had written. The booklet was a guide to creating great games, showing how to come up with ideas and what the process of writing games and getting them made was. Richard [Hanson] sent out hundreds of these ads, and that encouraged people to send in games."

This ad was a beautifully simple way of connecting the publisher to the developers long before the days of Facebook and Twitter. Thanks to this ad, Superior Software received hundreds of submissions, some of which turned into the classic games that many retro gamers so fondly remember.

Tyler, became one of the landmark moments in Superior Software's history. "The *Repton* series of games (*Repton 1*, *Repton 2*, *Repton 3*, *Repton Infinity*, and extra level sets for *Repton 3*) is Superior's biggest success in both overall sales and rewarding customer compliments," says Hanson. "Personally, I think the *Repton* games are the best puzzle-solving games I have ever experienced, and a number of our customers have given similar comments."

Repton made Superior Software leaders of the puzzle genre, and that position would only strengthen with 1985's *Citadel*, Michael Jakobsen's puzzle-platformer in which players must find five crystals hidden in a castle and return them to their rightful place.

Citadel was a masterfully designed game, but managed to separate itself from the pack, thanks to its innovative use of the incredible voice generating software Speech. "Speech was originally a chip-based software synthesiser," says Payne. "It was only going to be sold on chip. [The problem was] you had to lift the lid off the BBC Micro and carefully push the chip in, and if you weren't careful you could break a leg – then you had a real problem. People were very wary about putting those in. I thought, 'Why don't we make it a RAM base, so you just load it in from tape.' I got the inspiration from America with SAM [Software Automatic Mouth]. SAM was a cassette based software synthesiser and had been very successful."

The move to RAM made Speech much more accessible and gave *Citadel* a mark of distinction. As Payne says, "[Thanks to Speech], the loading screen said 'Citadel' with a digitised voice, which was something you very rarely got in the Eighties, so that made it look like it was going to be a really good game."

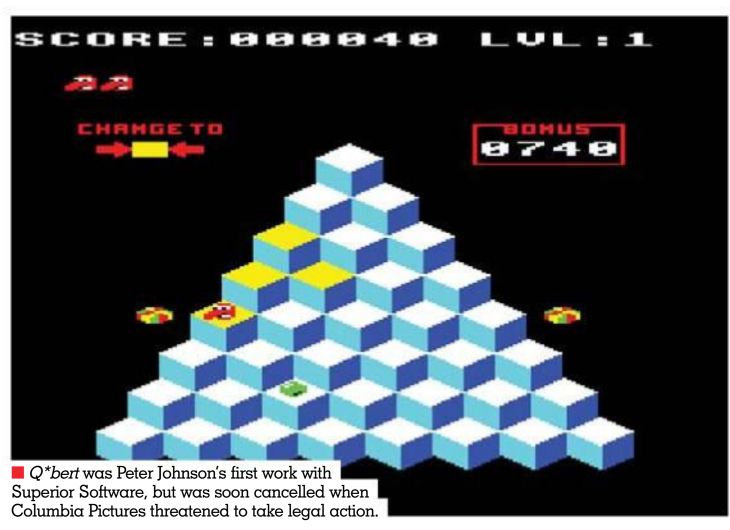
Technical innovations like Speech helped to set Superior Software apart from rival publishers and led to an influx of talented personnel and game designers eager to work with the company. As Hanson recounts, "Superior's personnel included Steve Botterill, Chris Payne and Steven Hanson. And there have been many key [game designers] including: Tim Tyler, Peter Johnson, Martin Edmondson and Nicholas Chamberlain (*Ravenskull* and *Codename Droid*), Chris Roberts (*Stryker's Run*), Kevin Edwards (*Crazee Rider* and *Galaforce*), Matthew Atkinson (*Tempest* and *Repton 3*), Peter Scott (for some very skilful conversions), David Braben (for *Zarch* soon after the launch of Acorn's Archimedes computer), and in later years David Bratton, Darren Izzard and Ian Rees."

Thanks to this growing roster of game designers and Hanson's own direction, Superior Software came to dominate the Micro and Electron scenes in the late Eighties, putting out six of the top ten bestselling BBC Micro games of 1987, and releasing Exile in 1988, which, as Matthew Atkinson [programmer on *Repton 3*] says, "has been described as the first ever computer game to employ a physics engine." But the team would face a significant challenge at the birth of the fourth generation of video games, when consoles like the TurboGrafx-16 and, later, the SNES and Mega Drive, led to a complete change of landscape for the gaming industry.

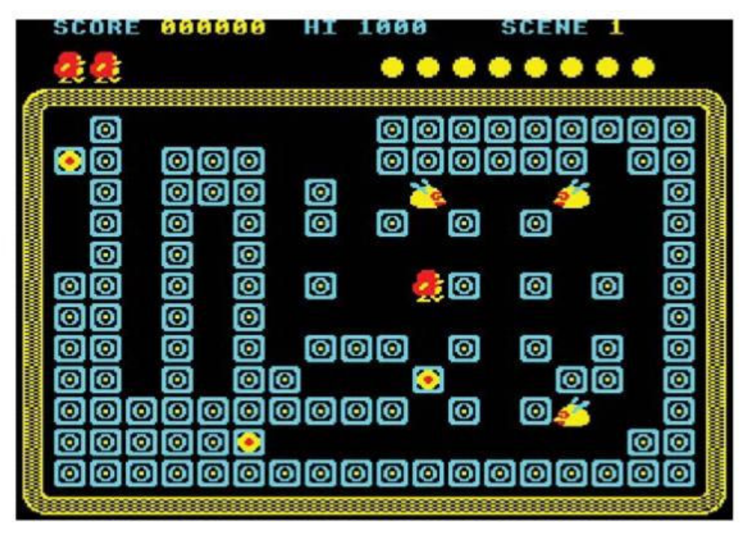
Hanson and his team had always been fully committed to Acorn development – "We published several titles for other computers, such as the Commodore 64, Sinclair Spectrum and Commodore Amiga… but we kept coming back to the Acorn computers – at that time they were the computers that we really enjoyed and knew best," says Hanson. But time was running out for the BBC Micro and Acorn Electron, and as Atkinson says, "The writing was on the wall for the 8 bit machines in the late Eighties."

Throughout the fourth generation of video games, developers and publishers were forced to close shop, unable to compete with the larger developers and the escalating price of games development. "The games were





■ *Q*bert* was Peter Johnson's first work with Superior Software, but was soon cancelled when Columbia Pictures threatened to take legal action.







■ *Karate Combat* found itself in steep competition with the likes of *Yie Ar Kung Fu* and *Karate Champ.*

becoming more sophisticated, it started to take longer and longer to make them, and [larger companies] were using in-house teams with salaries," says Payne. "The business changed. The sheer cost of development of 16 bit games was probably what stopped Superior Software [from creating games on 16-bit systems]." However, Hanson states, "If Acorn Computers had produced their own games console we would have created software for it." That, however, was not to be.

Superior Software had been born in a time of great opportunity in the gaming industry. In 1982 it was possible to put £100 into a bank to kick-start a games company, and to see that company go from strength to strength through a combination of business acumen, hard work and ingenuity, even growing to such a height that, as Atkinson states, "Superior Software can justifiably say they were the best BBC Micro and Electron games company in the country at that time." By 1990, those days were gone and a new era of large-scale developers with much higher budgets had taken over.

And yet, even despite the almost insurmountable competition, Superior Software has survived to this day. The team, rebranded under the name Superior Interactive, continues to create new versions of their old games. "Our current games have a keen following of fans, particularly for the *Repton* series," says Hanson. "There are currently PC and iOS versions of *Repton* games available, and we are planning to release an Android version of *Repton 1* soon."

Through it all, Superior Software has consistently defied the odds and survived the fiercest of climates. But what is most poignant about Superior Software's story is that it wasn't the scale of the developer, nor their budget, that made the publisher a success. By all accounts, the principle factor in Superior Software's rise, dominance, and enduring survival, was the professionalism and honesty of one man: Richard Hanson.

"IF ACORN COMPUTERS HAD PRODUCED THEIR OWN GAMES CONSOLE WE WOULD HAVE CREATED SOFTWARE FOR IT"
Richard Hanson

What was Superior Software's winning strategy? "Choosing the right games to publish for the public, and behaving in a trustworthy manner for developers," says Johnson. "You heard plenty of horror stories from this time of publishers that would treat developers badly, although I saw very little of it myself." Payne agrees. "It was a matter of we do business with people we know, like and trust. People liked Richard and trusted him. He was very straight forward and honest. He was very efficient at paying royalties. And so he had a loyal set of people. Richard truly was one of the good guys in this business."

■ Chris Payne brought his marketing knowledge to the company, helping it to grow.

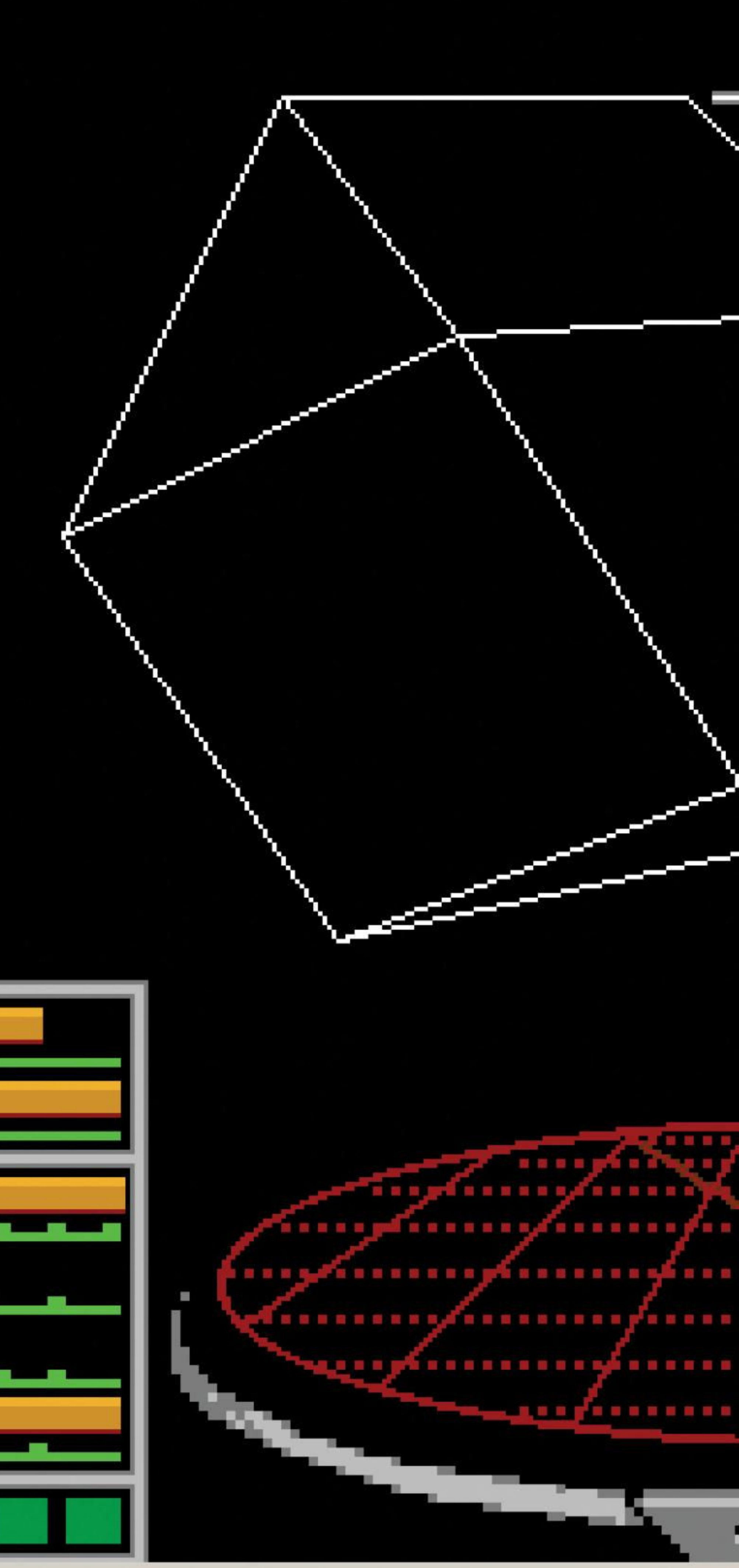

■ Richard Hanson still works at the publisher, now known as Superior Interactive.

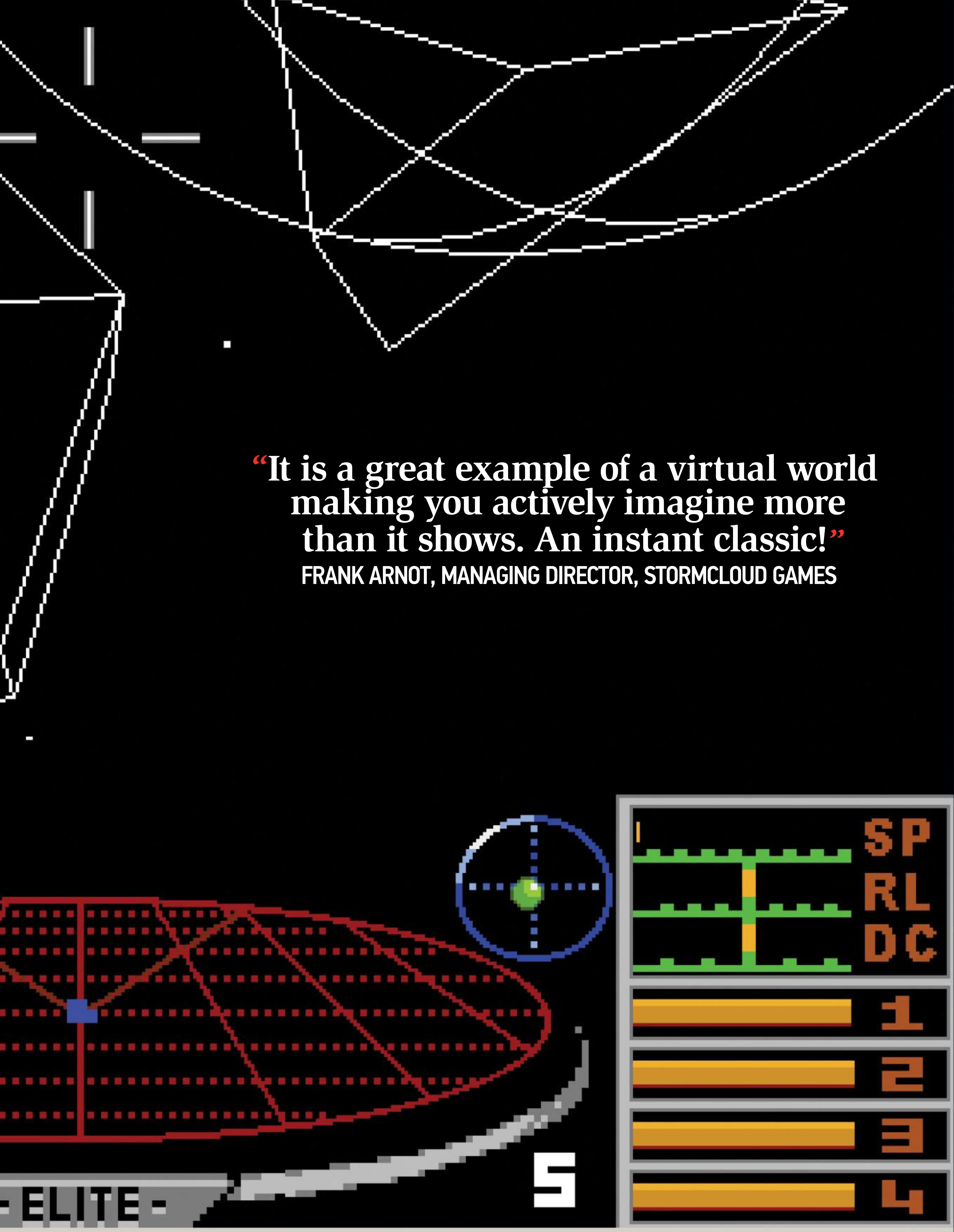
WHY I ❤...

ELITE

FRANK ARNOT, MANAGING DIRECTOR AND FOUNDER, STORMCLOUD GAMES

My favourite game? That is such an impossible question to answer! Plus I'm old… I've been playing games since the Eighties, so there's a lot for me to choose from! If you are twisting my arm, I guess I'd have to go back to my youth and choose the original Elite*. By today's standards,* Elite*'s wireframe graphics seem very simplistic but for my 14-year old self, it was pure escapism. Sandbox gameplay, my own spaceship to pilot, a whole universe to explore, space battles, and a moral choice over how I made money, whether it be piracy, mining, bounty hunting or trading in legal goods or more shady contraband. It is a great example of a virtual world making you actively imagine more than it shows. An instant classic!*



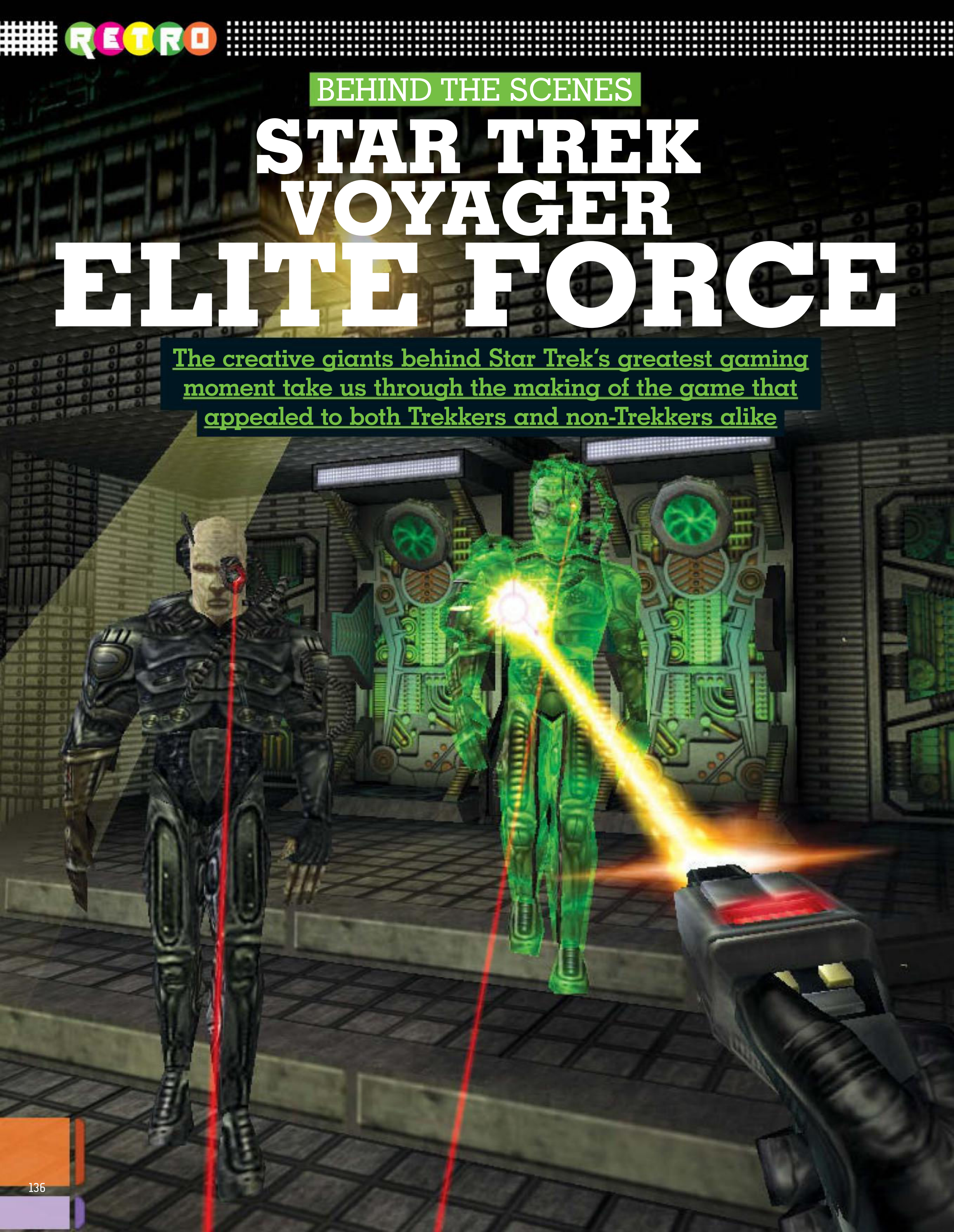


"It is a great example of a virtual world making you actively imagine more than it shows. An instant classic!"
FRANK ARNOT, MANAGING DIRECTOR, STORMCLOUD GAMES

BEHIND THE SCENES

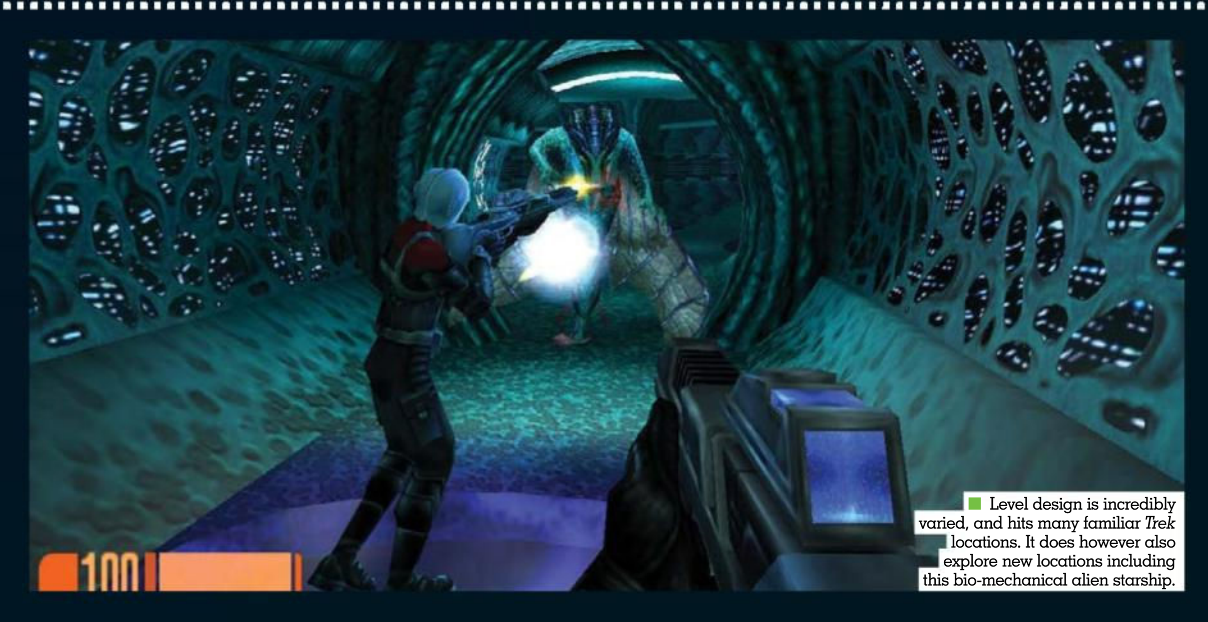
STAR TREK VOYAGER ELITE FORCE

The creative giants behind Star Trek's greatest gaming moment take us through the making of the game that appealed to both Trekkers and non-Trekkers alike





Brian Pelletier was project lead on *Elite Force* and would go on to work on the *X-Men Legends* games.



Level design is incredibly varied, and hits many familiar *Trek* locations. It does however also explore new locations including this bio-mechanical alien starship.



Released: 2000
Format: PC, PS2
Publisher: Activision
Key Staff: Brian Pelletier (Project Lead), Les Dorscheid (Art Lead), Christopher Foster (Design Lead), Steve and Pelletier Raffel (Creative Directors)

IN PREPARATION FOR his next game Brian Pelletier went to Paramount and sought out legendary *Star Trek* illustrator Rick Sternbach. After all, with his next project being a *Star Trek* game that placed the player on the USS Voyager, he desperately needed blueprints of the famed starship as a point of reference. Early into a *Star Trek* TV series' run, it was commonplace for in-depth blueprints to be published of whatever starship the series was set on. This not only let hardcore fans of the franchise invest more time into the world they loved, but it also helped the teams behind *Star Trek* to form a realistic map of the setting of their respective series. However, when Pelletier needed to learn about the inner workings of the USS Voyager for *Elite Force*, a game on which he was the project lead, the blueprints simply didn't exist. Despite this problem on top of other eventual issues with the *Quake III: Arena* engine, *Elite Force* was a huge success, and ultimately pleased both Trekkers and non-Trekkers alike.

The story begins in the spring of 1998. With Activision just fresh off acquiring the rights to create *Star Trek* games from Viacom, the plan was to initially create three games. Activision would eventually go on to publish such *Star Trek* titles as *Bridge Commander*, *Away Team* and *Armada*. However, the first of these games would be a first-person shooter, and Activision approached Raven Software to take command of the project. *Star Trek* has a lengthy history in videogames, and not all of these efforts were fitting in terms of quality for such a respected franchise. In learning from these past mistakes in *Star Trek* gaming history, Pelletier says, "*Star Trek* is a vast and rich franchise of settings and characters in which to explore ideas. We asked ourselves, what is it like to walk around the ship and talk to all the characters. *Trek* is more cerebral than action, with many characters and rich dialogue between them. We felt we needed that in our game as part of the holistic experience of living in the *Trek* universe. I think other *Trek* games made mistakes by focusing on just one or two aspects of what *Trek* is about. I feel they also failed in capturing the soul or essence of *Trek* by focusing on the type of 'game' it was, then wrapped *Trek* around it. We didn't think about making a shooter. Our team concentrated on what *Trek* was about, and how we could take an action shooter fit within it."

THE PARAMOUNT LICENSING GROUP WAS VERY OPEN TO OUR IDEAS AS LONG AS THEY MADE SENSE IN THE TREK UNIVERSE

With a strong mantra in mind for *Elite Force*, the team initially got to work on the game which set itself around the events of *The Next Generation*, and focused on an unknown crew on a Defiant-class starship. However, the rug was soon pulled from the project mere months into development as Paramount, not happy with *Voyager*'s ratings during its fourth season, pushed for the game to tie directly into the show, ultimately with the hopes of boosting ratings. After re-jigging what was already in the making to fit *Voyager*, the development of *Elite Force* was in full swing.

Taking place between episodes 21 and 22 of season six of *Voyager* (which can be found out by taking note of a Stardate given by Captain Janeway), *Elite Force* focused on the Hazard Team; a specialised unit of tactical officers that served as Voyager's first line of defence. Taking



Between missions you can interact with other members of the Hazard Team, and this helps build a great sense of camaraderie with the team.

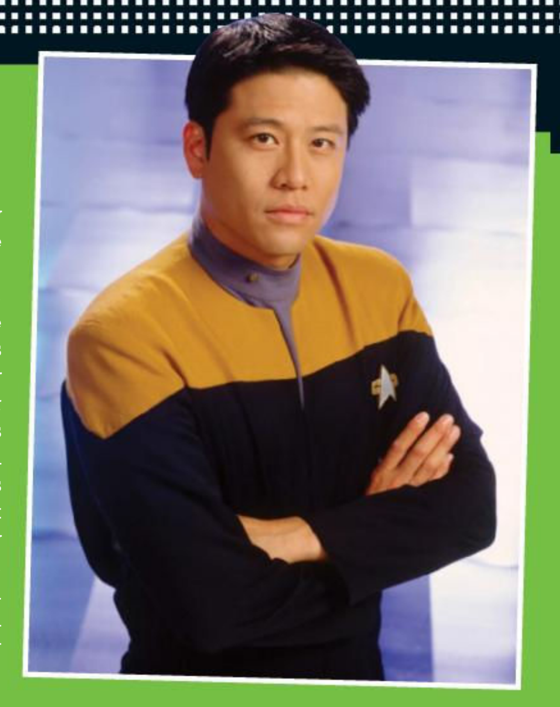
THE CREW SPEAK!

Two Star Trek stars' take on their virtual Voyager adventure

■ THOUGH FOR THE most part *Elite Force* focused on the Hazard Team, voiced wonderfully by Rino Romano, Devon Raymond, Iris Bahr, Derek McGrath, Michael McFall and Thomas F. Wilson, the cast also featured more familiar characters. Adding to the authenticity of the game, *Elite Force* featured the vocals talents of the cast of the *Voyager* TV series.

In regards to his work on *Elite Force*, Tim Russ, who is best known for his role as Tuvok says, "Working on *Elite Force* was fairly straight forward. I was of course playing a role I had played for seven years, unlike other videogames wherein I have to play several different characters. The sessions ran about four hours each, and there was a ton of dialogue, because the Tuvok character had to have a variety of responses for the player depending on which decision or action the player made. It turned out to be a very complex, and a well structured game, and I have gotten nothing but positive feedback about it."

Tim wasn't alone in praising the game, as Garrett Wang also enjoyed his time while working on the game as he reprised his role as Ensign Harry Kim. Garrett recalls, "I remember going in to record the voiceover for *Star Trek Voyager: Elite Force* as if it were yesterday. It was the first videogame voiceover I had ever been part of. What stood out most from the many lines I had to record were the lines that were meant to be Harry Kim's response to being shot at by the player. It was comical, recording lines like, "Ouch!" and "Hey! I'm on your side!" I've had many fans tell me that the game has withstood the test of time and that they still enjoy playing *Elite Force* to this day."







Star Trek: Voyager Elite Force Review

Star Trek fans shouldn't be alone in experiencing the game's exciting story-driven single-player campaign, as well as its solid multiplayer mode.

It's undoubtedly one of the best Star Trek games to date, and its only rival in its genre so far this year is, unsurprisingly, Raven's own shooter, Soldier of Fortune

GameSpot, 2000



the role of Ensign Alex Munro (who can be male or female) the player is tasked with defending Voyager, after it's suddenly transported to a mysterious starship graveyard. Surrounded by a sea of derelict starships and a whole host of *Star Trek* enemies that want the crew dead, it's up to Munro and the Hazard Team to save the day. The set-up was classic *Star Trek*, and the locations, script, items, weapons and overall feel of the game followed suit accordingly.

Although – back when *Elite Force* was in development – *Star Trek* was starting to lose its importance on our screens, Paramount was still incredibly protective of its intellectual property. That said, as Les Dorscheid, art lead on the game, says, "Paramount was wonderful to work with. We were very excited to be trusted with the license, and the people I worked with from Paramount were enthusiastic gaming fans. All the visuals needed to be approved, but for the most part they liked what we created. We were supplied with great reference and research materials too. The basic direction was to stay within the *Voyager* universe for characters, weapons, and ship designs.

This sentiment is echoed by Pelletier. "The Paramount licensing group was very open to our ideas as long as they made sense in the *Trek* universe. I believe that because we approached our ideas from *Voyager* and *Trek* first, then worked them into the game. We stayed within the boundaries and used what the franchise offered instead of rewriting it to fit our game. We weren't trying to change things, but rather add things that made sense to the current situation.

"Take the Hazard Team for instance; we were making a shooter and thus needed to place emphasis on shooting. We came up with a team of crew members who would be trained as an Elite Force to deal with unknown threats. Voyager was separated from Starfleet in an unexplored quadrant of the galaxy making their way back home. It made sense that the Captain and first officers should be protected and not be put in harm's way by going on away missions. This made sense to Paramount too. We were able to place Klingons from *The Next Generation* and a classic *Trek* ship in the game because we made them fit into the storyline, and thus had a logical reason for them being there. Paramount again accepted the reasoning and allowed it."

As Raven Software had a long relationship with id Software and used every one of their engines since the days of *Castle Wolfenstein 3D*, *Elite Force* utilised the *Quake III: Arena* engine. Though the team revelled in its ability to create curved surfaces, something Pelletier and Dorscheid felt was a must in order to properly replicate the interiors of *Voyager*, using the engine didn't come without its issues. "If I had to pick two of the biggest issues while making *Elite Force*, one would be working with *Quake III* technology while it was still being developed by id Software," says Pelletier. "There were many occasions

DELAYS GETTING THE FINAL TECH MEANT WE HAD TO CRUNCH NEAR THE VERY END OF THE PROJECT TO CREATE ALL OF THE PUZZLES



■ One mission faces you off against a Terran Empire crew, more commonly known as the mirrorverse version of Starfleet.

> A GAMING EVOLUTION

Quake III: Arena> Voyager: Elite Force> Call Of Duty



Commonly known as the *Quake III* engine thanks to its use in this game, id Tech 3 became a popular base for the FPS titles in the future.



Following on from its use in *Elite Force*, Infinity Ward would use a modified *Quake III* engine to make the original *Call Of Duty* for PC. Humble beginnings for a massive franchise.



were we would get the latest tech update from John Carmack, and it would destroy weeks worth of work our level designers did, which continually put us behind schedule. I remember several times it was the lighting that had to be redone because of tech changes with curved surfaces."

The second issue Pelletier and his team faced was *Elite Force*'s game flow. He continues, "When working with undone technology you spend half the development time just getting the tech to point where you can actually build a game. We were planning a lot of puzzles which meant specific mechanics be in place. Delays getting the final tech meant we had to crunch near the very end of the project to create all of the puzzles and final game flow. Myself, Steve Raffle (creative director) and Chris Foster (design lead) spent two straight weeks in a conference room laying out the entire game flow making it cohesive. The game designers then went into massive crunch mode implementing all the puzzles and gameplay into the levels."

Though the team tussled with the engine throughout development, everything else in place ensured that *Elite Force* was a robust and fun shooter. Featuring an array of weapons, aliens and locales that were both familiar to fans and also original creations entirely, *Elite Force* successfully felt like it belonged in the *Star Trek* universe, something many games within the franchise failed to achieve at that point. This came down to many



The bridge of Voyager is perfectly recreated in *Elite Force* and fully explorable. The same goes for the adjoining briefing room and Captain's quarters.



Elite Force contains a few fun moments in which the player can go down the stealth route. They're short-lived though.

ONLINE PLAY PERFECTED

Elite Force's online multiplayer- the ultimate Trekker experience

■ THE MAIN CAMPAIGN of *Elite Force* was everything a Trekker could ever have wanted, but its online multiplayer placed all the weapons, items and characters within the confines of a singular level, all the while pitted against 31 enemies. The result, whether you were playing against real players or making use of *Elite Force*'s fantastic AI bots, was simply stunning to behold. From playing as the Klingon messianic figure Kahless and taking down your friends in Deathmatch, to choosing Boothby, the elderly Starfleet Academy grounds keeper, and evading the growing collective in Assimilation mode, multiplayer in *Elite Force* was addictive, hilarious at times and often proved a better time sink than the main campaign itself.

factors, one of which was Les' visual execution of the game. Though *Elite Force* is filled with interesting levels including that of a Borg Cube and a bio-mechanical starship, one level in particular placed the player on an enemy base comprised of various cobbled together starships. Throughout this unique level the player ventured through the remains of a mirror universe's Constitution class starship, a Klingon Bird-of-Prey, a Hirogen hunting vessel and a Malon freighter.

In creating this memorable level, Dorscheid recalls, "Most often, levels are designed with the gameplay in mind first, while the art needs to play a supporting role. That's how I recall the development of the Scavenger base. We placed proxy objects in the level first, then refined the gameplay, and once we knew the space and composition we created the final art assets. This mission had some advanced scripting compared with other games at the time, and the environments needed to allow the pathing to function without getting hung up, creating bugs and problems getting through QA testing."

The main modelling tool throughout the development of Elite Force was 3D Studio Max. Dorscheid remembers how innovative the development team were as he says, "3D Studio Max came with multiple reference books each two to three inches thick. We needed to learn new techniques and develop new procedures to create top quality environments, characters, FX, and weapons. The programmers created art tools in house, including a UV texture coordinate unwrap tool, and this was before similar tools were the industry standard.

Elite Force brought the player through a varied selection of alien locations, but the most important location was a little closer to home- the USS Voyager itself. Fitting in line with Pelletier's desire to create the ultimate *Star Trek* experience, *Elite Force* let the player explore various decks of the ship. Later added to with an expansion pack in 2001, *Elite Force* would ultimately let the player explore classic areas such as the holodeck (complete with Holographic Programs), the shuttle bay, the mess hall, engineering, the transporter room, sickbay and, naturally, the bridge. Though Pelletier didn't walk away from his meeting with Rick Sternbach with any blueprints of *Voyager*, he says, "We got the awesome consolation of working directly with a *Star Trek* visionary over the next few months to diagram the layouts for the decks of *Voyager*, in order to make players feel like they were in a logical *Trek* ship, Jefferies tubes and all."

Furthermore, in terms of tackling the recreation of the many halls and decks of *Voyager*, Dorscheid recalls, "We drew our own blueprints and schematics to work from, wanting to make all the decks fit together. They didn't fit together physically, but visually I believe we succeeded. We laboured over the details, but of course some of the scale needed to accommodate game mechanics. Doors had to be a bit larger, hallways wider, and ceilings higher. I remember testing multiple camera settings, going back and forth with the programmers to balance visual space with ease of camera movement. This had a big impact on how fast the player appeared to run. We wanted fast paced action, but needed room to run without compromising the visual accuracy. It was a lot to consider before we ever got to the fun stuff like recreating the weapons, ships, characters and set dressing.

Adding to the authenticity, Raven Software had full access to the cast of *Voyager*, all of whom returned to voice their respective characters. However, though her voice was later added to the game through the expansion pack, Jeri Ryan who played Seven of Nine initially didn't voice her character in *Elite Force*. The cast

■ Transporting to a mission happens in real-time, and is one of many iconic Trek moments you will find yourself playing out.



Weapons in *Elite Force* pack a heavy punch, and with eight available throughout the game, there is always a perfect weapon for a certain situation.



Les Dorscheid would later apply his artistic talents to games such as *Jedi Academy*, *Marvel Ultimate Alliance* and *Defiance*.





Weapons stick to the standard Quake formula, but visually they're bright, wild, and eye-popping enough to give you the satisfied you need, especially given that you aren't going to be blowing aliens into bloody bits like you would in your average fragfest.

IGN, 2000



were the final piece of the puzzle that made the game feel like a true Star Trek experience. Whether you found yourself in sickbay being examined by The Doctor with his terrible bedside manner, in the mess hall watching Nelix prepare a meal for the crew, or on the bridge surrounded by characters such as Janeway, Tuvok, Harry Kim or Chakotay, it all felt like an interactive episode of the TV series.

In terms of what the actors brought to the table, Pelletier says, "Having the entire cast in the game gave credibility to the product. We wanted to create an entire *Voyager* experience, and that meant including all the cast and their unique personalities to help with authenticity. We also wanted to explore each character and how they would react in the game to the situations that were happening. The actors were great to work with. They were all enthusiastic to be part of the project. Some even played early versions of the game to understand their role within it. During the recording sessions, they would help correct dialogue for their character if it didn't sound right. I really believe they enjoyed the whole process. We also got compliments from some of them for our writing."

IF YOU WANT TO KNOW WHAT IT FEELS LIKE BEING IN THE STAR TREK UNIVERSE, THEN PLAY THIS GAME

Though the team at Raven Software were certain that Trekkers would enjoy all the familiar trappings of the *Star Trek* universe on offer, the new cast of characters in the form of the Hazard Team were something untested and unproven. Approaching *Elite Force*, as Pelletier puts it, as a "day in the life of a Starfleet crewmember", the team did their best to create a selection of original characters, each one with a different personality and relationship to the main character of Munro.

To help build up a realistic bond between the player and their team, there were very few cut-scenes in the game. Instead, Raven Software opted to let the player take control of Munro between missions, and this was when most of the Hazard Team interactions would happen. These little moments in which the Hazard Team had downtime helped build up a sense of camaraderie, and proved to be a much praised element of the game by fans. It was that final element that helped *Elite Force* become one of the most respected, enjoyed and, above all else, authentic *Star Trek* games of all time.

Looking back at Elite Force, both Dorscheid and Pelletier are incredibly proud of what Raven Software brought to the *Star Trek* universe. "We poured our enthusiasm, creative energy and collective talents into it," Dorscheid says. "We had a great team and were given a great opportunity. It was fun and rewarding to work with so many talented artists, designers, animators, and programmers on a high profile project like *Star Trek*." Pelletier echoes this sentiment, and ultimately perfectly sums up what made *Elite Force* great in saying, "I'd like it to be remembered as one of the best *Star Trek* simulations every created. If you want to know what it feels like being in the *Star Trek* universe, then play this game."

For many Trekkers out there, *Elite Force* was the perfect *Star Trek* simulation. From the characters, locations, weapons, music and story, it was *Star Trek* through and through. However, beneath the visual and auditory flair that *Elite Force* had in spades, it also managed to tap into the heart of *Star Trek*, and that is something that is rather hard to pull off, which is evident from past games in the franchise. It walked the line between dealing with the dilemmas and moral issues that *Star Trek* often posed to the viewer, with the undeniable fact that it needed to be an action packed FPS. It achieved this near impossible feat with style and substance. *Elite Force* followed up with an enjoyable sequel by Ritual Entertainment in 2003, but it is the original that will ultimately live long and prosper in the hearts of gamers who roamed the halls of the *USS Voyager* back in 2000.

GAME CHANGERS

VIEWTIFUL JOE

Released: 26 June 2003 **Publisher:** Capcom **Developer:** In-house **System:** GameCube



Viewtiful Joe was an original IP from Hideki Kamiya, responsible for overseeing the likes of *Resident Evil 2*, *Devil May Cry*, *Bayonetta* and the upcoming Xbox One exclusive *Scalebound*

A forgotten Capcom gem, this was the GameCube game that redefined action in the most stylish way imaginable

THERE ISN'T ANOTHER action game on the planet that evokes the same sentiment of stylish, unbridled joy as the original *Viewtiful Joe*. Even now, 13 years on from its original release, it's still a masterclass in fluid action; Hideki Kamiya's fast and furious love letter to cinema and a dying breed of game design. If you take yourself back to 2003, you'll find Nintendo in a familiar situation: struggling to sell hardware and prove to perspective third-party studios that its latest console – the GameCube – was worthy of supporting. Capcom responded in force, pushing five console exclusives into the pipeline as a way of testing the GameCube's capacity to appeal to adults. The fact that the console looked like a big purple lunchbox certainly didn't help their case, but a team of legendary developers working on exciting new projects could surely turn the tide, right?

The Capcom Five, as they came to be known by an enthusiastic audience, were: *P.N.03*, *Dead Phoenix* (which failed to rise from the ashes), *Resident Evil 4*, *Killer 7* and, of course, *Viewtiful Joe*. It was a killer line-up, unprecedented almost. And while *Resident Evil 4* tends to receive most of the attention from this era of unbridled creativity, it was Hideki Kamiya's debut design project that still sends a shot of adrenaline to our hearts. Kamiya, fresh from directing *Resident Evil 2* and *Devil May Cry*, was tasked by the late Satoru Iwata to develop a game from the ground up, and the result is a classic that *should* need no introduction.

And yet, sadly, it does. It should be telling of the sort of developer Kamiya is that he chose to make his debut title on next-generation hardware a 2D action game. It's a move that's indicative of his brash and subversive development style; a master of the 3D genre stepping back to perfect the side-scroller and give the fixed-camera style he so lovingly propagated with *Resident Evil 2* and *Devil May Cry* one last hurrah.

BEST BOSS

VIEWTIFUL JOE HAD SOME GREAT BOSS BATTLES, THESE ARE OUR FAVOURITES



THE IRON OGRE

★ There's a lot of cool content in *Viewtiful Joe*, though it may be the appearance of Hulk Davidson that really sells it. He is, after all, a giant dinosaur riding a hog and wielding a battle-axe. It's not the most challenging fight in the game, but it may just be one of the most entertaining.



THE BLADE MASTER

★ This one can grind down your patience pretty quickly if you aren't careful, but there's actually an interesting piece of trivia attached to Alastor - his appearance and attack patterns are actually inspired by *the* Alastor, one of Dante's Devil Arms from the original *Devil May Cry.*



THE INFERNO LORD

★ Fire Leo is a gigantic pain in the ass. His headline battle, a three-phase stretch through button mash hell, has a tendency to test even the most creative of players – though excessive use of your VFX powers usually gets the job done.

The viewpoint was, well, all about the view; putting the player in the position of observer as much as it did an active participant. Kamiya created a world that's viewed through a camera lens – it doesn't follow Joe as he flips and skips through the air, but contorts in an effort to mimic the audience's head movements. The world shifts around Joe. It's almost as if he's zooming through an elegantly built set, our movement of the thumbsticks instructing some invisible studio-technicians behind the scenes to move the stage along.

■■■ *Viewtiful Joe* is, after all, set in make-believe Movieland. Sure, the story set-up is insubstantial at best – with Joe's girlfriend, Sylvia, being dragged into the reel of an action movie by an on-screen monster, with our hero pulled in right after – but, just as it is with many great action flicks, it isn't something to dwell on. Because with one shout of an ancient, mystical phrase, Joe unlocks his latent powers and is transformed from shlub to cinematic demi-god: "Henshin a-go-go, BABY!"

This isn't a game that simply succeeds from being stylish, it succeeds because the style is the game.

> **THE WORLD SHIFTS AROUND JOE. IT'S ALMOST AS IF HE IS ZOOMING THROUGH AN ELEGANTLY BUILT SET**

KEY FACTS

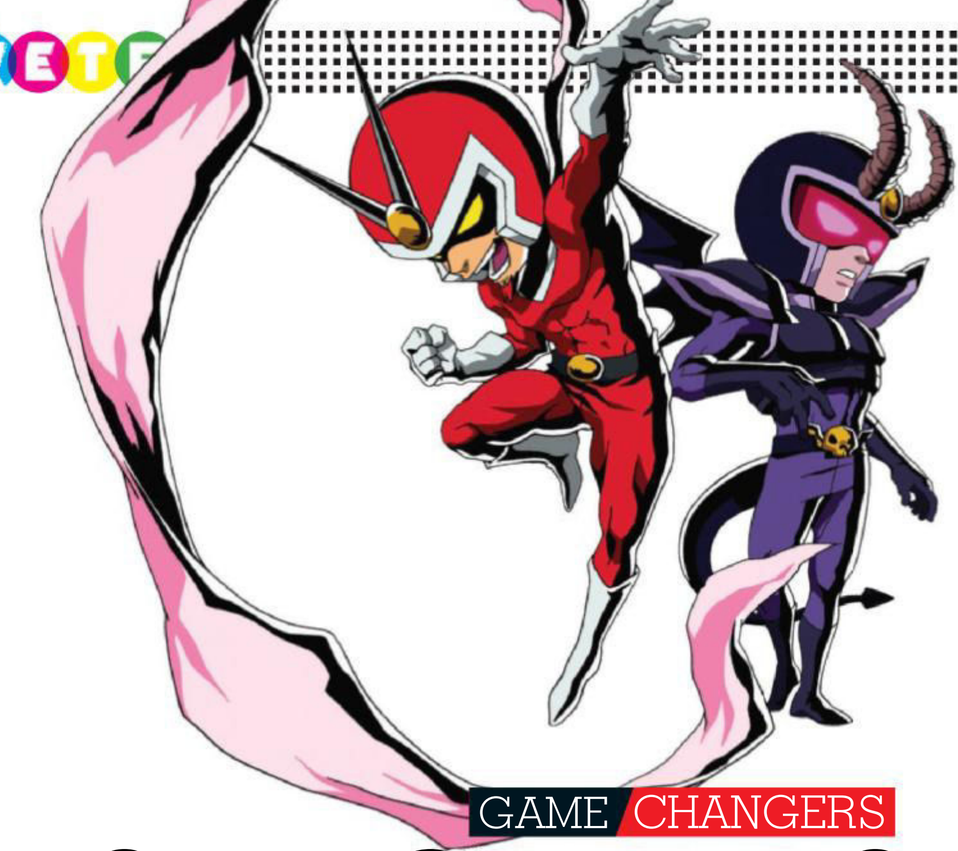
■ *Viewtiful Joe* was later brought over to PlayStation 2 after Capcom was disappointed with its sales. It was rebranded with a familiar subtitle – *Viewtiful Joe: A New Hope* – though it was, in truth, a mediocre port from Clover Studios.

■ The game features a ton of winks and nods to other Nintendo and Capcom game franchises. Characters inspired by weapons from *Devil May Cry,* weird-cameo appearances from R.O.B the robot and Joe even has a tendency to hum the *Super Mario* theme music.

Dropping into slow motion lets Joe deal out double damage, dodge bullets, and send enemies clattering against one another all over the screen. Zoom drags the camera in close to the ever-vein hero, letting him strike a pose before unleashing an array of ultra-stunning moves on unsuspecting aggressors. And then there's Mach Speed; the ability that lets Joe punch so fast he literally bursts into flames. *Viewtiful Joe* is one of the most fiercely evocative action games ever.

Not only did pulling off these moves make you feel truly, wonderfully powerful, but it also gave way to a subtle combo system that we've still yet to see properly replicated. Multipliers are triggered by knocking enemies into one another; fights quickly escalate by building a hit combo through basic strikes before sending that enemy careering into three or four behind them. The more enemies you can knock into one another, the longer you can keep the sequence of sublime fluidity in motion, the bigger the V-Point reward. Kamiya built a simple combat system that's designed entirely around encouraging creative free-flowing play; the fake audience clapping as you finish a combo with a devastating Red-Hot One-Hundred introducing a self-congratulatory smile on the player's face.

Viewtiful Joe demonstrated Kamiya's love for cinema, but also his understanding of cinematic techniques. Just two years later, *Resident Evil 4* would release and effectively kill the fixed-camera angle for action games, a tight third-person POV becoming the preference for game designers. But then there's always *Viewtiful Joe*, the game that proved that the fixed-camera could continue to exist and thrive, no matter the genre – it's just down to the team behind the lens to ensure that it is used correctly.



GAME CHANGERS

SIX GAMES THE CAPCOM FIVE INSPIRED

IT STARTED AS A PUBLISHING DEAL FOR GAMECUBE, BUT IT LAUNCHED THE CAREERS OF SEVERAL GAMING LEGENDS

THE ORIGINAL 'CAPCOM Five' was a launch collection of the most exciting games of the GameCube era, even if one of them didn't actually make it to the system. *Resident Evil 4*, *P.N.03*, *Killer 7*, *Viewtiful Joe*, and the cancelled *Dead Phoenix* represented a commitment from Capcom to back Nintendo's console in a big way.

Many of these games would prove to be hugely influential, with *Viewtiful Joe* pushing combo-driven combat, *Resi 4* revolutionising horror and third-person shooters, and *Killer 7* opening up the door to grown-up, surrealist experiences (*Deadly Premonition* feels like it has some roots here). But perhaps just as important were the games that the producers and directors behind the Capcom Five would go on to make.

Shinji Mikami, Hideki Kamiya, Atsushi Inaba, Hiroyuki Kobayashi and Goichi Suda (or Suda 51 as he is also known) would all go on to make some incredible games. It's testament to how prolific and impactful these creators were and would go on to be that this list would eventually include *Shadows Of The Damned*, *Project X Zone*, *Dragon's Dogma*, *MadWorld*, *Anarchy Reigns*, *Bayonetta*, and *Lollipop Chainsaw*. However, it's only the games that have clear parallels to the original five that we've profiled here.

When you consider the pool of talent that Capcom had gathered at the time, it's a wonder that the GameCube and these titles didn't prove to be more commercially successful. As it was, Capcom wasn't able to keep hold of most of these creators; they went on to form Clover and, after that collapsed, Platinum Games. As the years have gone by, some of their output has begun to lag behind modern gaming trends, but when they embrace their roots, as these games did, they often produce something both incredibly innovative and nostalgic.

Whenever we hear that one of the directors or producers of the Capcom Five has a new project on the horizon, our interest is immediately piqued. With games like these in their histories we always feel confident they can hit upon something again that will capture some of that original magic.



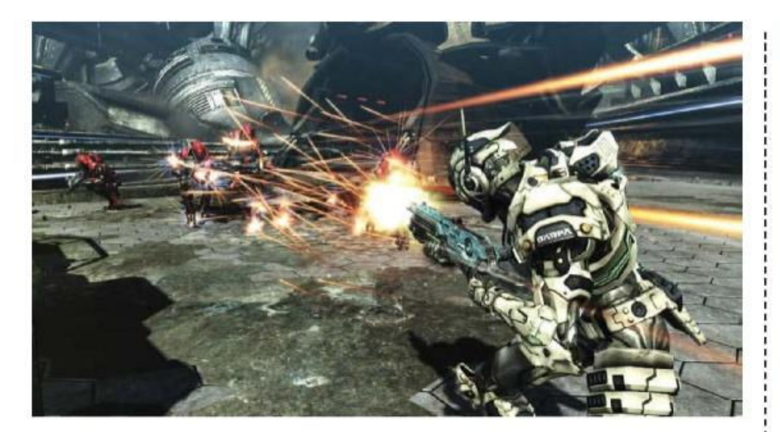
OKAMI

■ TEAM VIEWTIFUL AND many of Capcom Studio 9's R&D talent was transformed into Clover Studios. The studio's goal (with Kamiya at the helm) was to create new IP and they key success story was *Okami*. The 2006 action-adventure game used a beautiful woodcut, watercolour style and is largely recognised as an unsung classic of the PlayStation 2 era.



VIEWTIFUL JOE 2

■ WITH KAMIYA OFF working on *Okami*, *Viewtiful Joe 2* was put into development with Masaaju Yamada and Atsushi Inaba taking on directorial and production roles respectively, with the latter helping to bring the likes of *Viewtiful Joe*, *Okami* and *God Hand* into the world. A critical darling that once again failed to capture the general public.



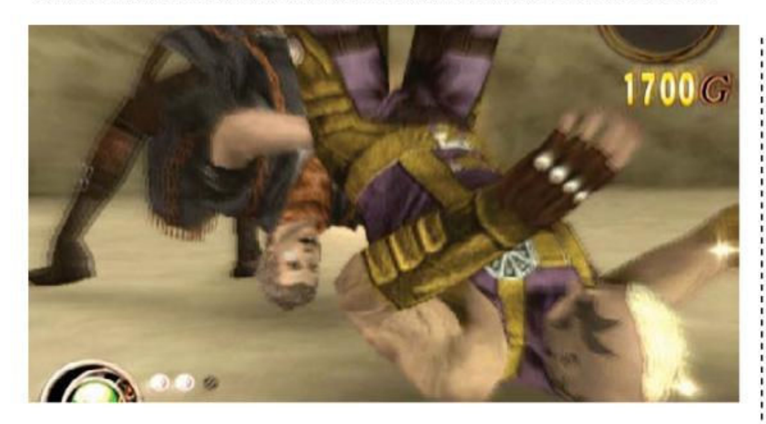
VANQUISH

■ SHINJI MIKAMI MAY not have found success with *P.N.03*, but the developer took many of the basic design philosophies and pushed them into his Platinum Games' debut, *Vanquish*. The wickedly fast, super stylish shooter was a fantastic take on the genre, with its boost-slide mechanic widely regarded as excellently creative.



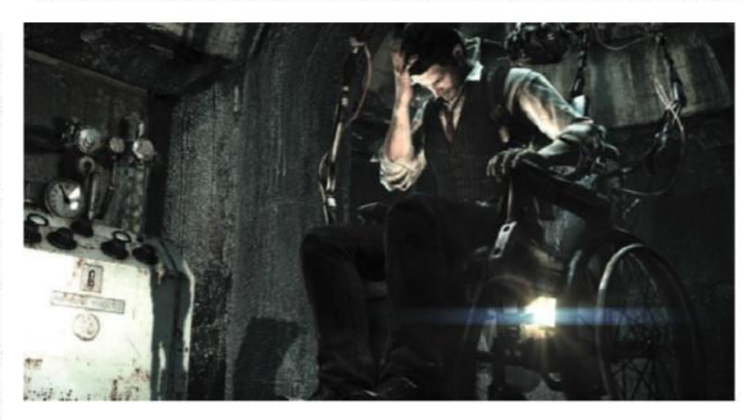
NO MORE HEROES

■ SUDA 51 IS known for being rather 'out there' – and that's if we're being generous – on his projects, but it's still bizarre to even consider that this bloody, grindhouse-inspired, Adult-rated action game was a Nintendo Wii exclusive, the console that typically appealed to the younger generation and families.



GOD HAND

■ SHOWING A COMMITMENT to hardcore gamers in the later stages of the PS2's life, as *Guitar Hero* and *Singstar* took over the platform, Mikami's *God Hand* was one of the most brutal and challenging brawlers you could wish to play. It didn't get the best review scores, but those who tapped into its wavelength found it hard to put down.



THE EVIL WITHIN

■ TAPPING BACK INTO his *Resi 4* roots, Shinji Mikami went all-out with his first Tango Gameworks release working with Bethesda. It somehow manages to be even more insane than Capcom's series, more twisted, creepier, but also a little dated in its handling. It honours the past perhaps a little more than it pushes things forward for the genre.





RETRO

INTERVIEW

STEWART COPELAND

Former drummer of The Police finally speaks about his time on the Spyro series, working with Insomniac Games, and if the purple dragon should get back to its classic roots

SELECT GAMEOGRAPHY



Spyro The Dragon (1998) Composer



Spyro 2: Gateway To Glimmer (1999) Composer



Spyro: Year Of The Dragon (2000) Composer

What does *Spyro The Dragon* mean to you?

When I was doing *Spyro* it was during the 'Golden Age' of my family life. It was a time where my boys were old enough, and my girls were just young enough where we could all sit around the TV and play games. It was like a 1950s family, gathered around the one TV with only three stations to choose from.

My son Patrick who, by the way, works at Insomniac Games now, would take the controller and guide us through the levels. He was much better at the game than me by a long shot! *Spyro* was a real lucky strike, I think. The graphics were impressive, the gameplay was engaging and the best part for me was that I got to do it all while listening to my own damn music!

Would you consider yourself a gamer?

No, not really. I enjoyed *Spyro* with my family, but even now my son Patrick strenuously tries to engage me with games. He wants to play games in which he can not only kill his father, but also "teabag" him…

When you were starting work on *Spyro*, what did you get to see of the game itself?

I had the game in front of me and it was glorious. It took me a while to get through the levels because I was so crap at it. So because I could play it, I'd have the music I created on a loop while I played the levels. But sometimes I'd find myself forgetting about the music entirely while trying to finish the level! It was an early version of the game so it had glitches, of course. I could fly right out of the world and off into space, come around and view the level from behind. It ended up looking like a movie set. I also had cheats to help me through the game such as invincibility, which was critical to actually helping me experience the game! By the way, all the careful work I did in matching certain tracks to particular levels went unused. I'm not sure if they were just unaware that I matched levels with tracks, or that they just made different creative choices, but the result seemed kind of random to me.

EVERYTHING FROM STADIUM ROCK, CLASSICAL MUSIC, TO NURSERY THYMES I LEARNED AT SCHOOL, IT ALL WENT INTO CREATING THE MUSIC

Each *Spyro* game contains a large number of tracks. How did you deal with creating such an extensive tracklist?

Something interesting came from working on Spyro, and other times where I had to create a large volume of material fast, such



ALONE IN THE DARK: THE NEW NIGHTMARE

■■■ Outside of the *Spyro* series, Stewart also worked on the *Alone In The Dark* series, namely the 2001's, *The New Nightmare*. Though the game's subject matter is quite unlike anything he ever tackled before throughout his career, his contribution to the game falls very much is line with his past work. Alongside Jimmie Wood, Stewart created the theme song *Alone In The Dark*, an over-the-top rock anthem that contains excellent vocals, heavy drums from Stewart and a big hook that leads into the belting chorus.

as when I composed for *Dead Like Me* and *The Equalizer*. For TV, the show comes in Tuesday and you have to finish the music and ship it by Friday, whether it's your finest hour or not. For *Spyro* it was kind of like doing a quadruple LP of backing tracks. A lot of material was required, and under that intense schedule the quality of work improved drastically. That's not what you'd expect and it sounds counter-intuitive, but the music I've done in a blazing hurry is the best music I've ever written. When I get commissioned by the Pittsburgh Symphony to write a concerto for their orchestra, I reach back to *Spyro* for some of those tunes I wrote in the heat of the moment. They're some of my most affecting music, my best insights and my best ideas.

It's in these moments of pressure is when our creative juices start to flow. I arrived at my *Spyro* music very quickly. I'd write four tunes in a day and on the next day I'd tidy them up. And yet, under those conditions the actual depth of the music and the progressions, makes for some of my favourite music that I've ever written.

When composing for games, do you bring across what you've learned from your other work, or do you start from scratch?
I bring everything across. Whether you're writing a song for a band, scoring a scene in a movie or writing a theme for a level in a game, it's the band, the scene or the game that points your creativity in the right direction. But it's your life that expresses itself once you're pointed in the right direction. So for Spyro, everything from stadium rock, classical music to nursery thymes I learned at school all went into creating the music for any given level.

How do you approach creating tracks that gamers won't tire of?
Many tracks intentionally overlap, including the main *Spyro* theme. I would apply them in other levels with no problem, because I thought that cross pollination would be good, and a recognizable tune coming back during the game was all part of *Spyro*'s world. Each track would be about three minutes, and if I wasn't sick of it after listening to it again and again, it would be okay. You could also apply some rules of thumb to it as well, such as don't user annoying sounds. Even if they sound cool at first, they might get old fast. Ultimately, you need to rely on your own instincts to know if it's crap or not. That goes for any art. In fact, under pressure you often don't have time to work out if it's crap or not. It's only years later in which you look back on your work and think, 'Hey that's not bad!'



With Spyro being quite a young dragon, he is only able to glide rather than fly. Spyro's glide is something you will use quite often though the game.

During your work on Spyro, how did you feel your music complemented the setting of the levels?
Well, let's say it's a ice level. That's easy because in my palette I had certain sounds that sounded icy. They were mostly metallic sounds. But if you were going for a jungle level you'd change the palette slightly to something that would help tell that story.

Your final Spyro game was *Enter The Dragonfly* on Playstation 2. Compared to the first game, how much did the tech change?
The gear is evolving all the time, and there have been whole technologies since I started recording back in 1974. There are always emergences of technology that change everything, flourish for awhile, then are gone. An example of that is the Mitsubishi 48-track digital multi-recorder. I'm not sure where exactly the technology changed between the first three *Spyro* games to *Enter The Dragonfly* in terms of music, but the game itself underwent a massive change in technology. It was a different development team who worked on it too, so it never felt quite the same to me. Maybe that's why it was the last one I did.



Level design throughout the Spyro series is incredibly colourful and diverse, and this is reflected throughout Stewart's music.

SPYRO THE DRAGON: ENTER THE DRAGONFLY

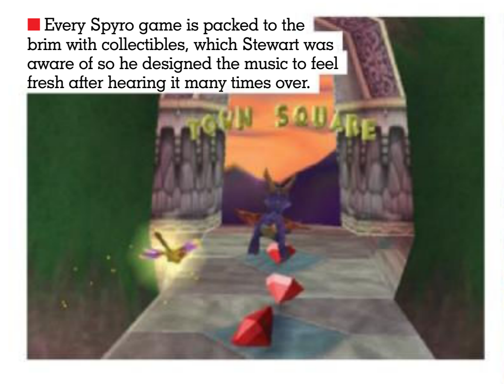
Stewart was a fixture of the Spyro series right from its inception. However, after *Spyro: Enter The Dragonfly*, Stewart didn't join Insomniac Games when it started the *Ratchet & Clank* franchise on the Playstation 2. Without Insomniac Games at the helm and the world lacking Stewart's music, many hardcore Spyro fans felt that every game since *Enter The Dragonfly* was missing something special.





Spyro has two types of attacks: fire breathing and a running head butt. Some enemies require you to defeat them using specific attacks.





Every Spyro game is packed to the brim with collectibles, which Stewart was aware of so he designed the music to feel fresh after hearing it many times over.


Spyro's cast is both recognisable and iconic. This is mostly thanks to Charles Zembillas, art director on both *Spyro The Dragon and Year Of The Dragon*.

Was there a certain moment for you that you can recall that cemented your end with the series?
I remember the team came in to create the promotional materials for *Enter The Dragonfly*. They showed me an ad they had, which I didn't even recognise as Spyro. It was country and western-themed, and I think that's where the divergence happened for me. We were not on the same page any more. I enjoyed working on all the Spyro games that I was involved with, but I think it ended at a logical place.

Do you think that era of Spyro can be ever be returned to?
Here's a good analogy. The band Genesis had a whole career and then Peter Gabriel, their lead singer, left and started his own solo career. The band thought "Screw that!" and then the drummer, Phil Collins, moved onto the mic and they have a whole new string of hits. All the diehard Genesis fans regard the original line-up as the best version of the band, much like how many Spyro fans feel about the first three or four games. Anyway, years later they tried to get the original Genesis line-up back together for a big reunion tour. Peter Gabriel took some time to think about it – because he's like that – and while he thought it over they did some market research. It turns out that no one wanted to go see the original line-up because all the hits they remember were from the Phil Collins years. There's a whole generation of gamers for which the new Spyro is the real deal.

GAMES CAN NOW END UP SOUNDING LIKE THE BIGGEST MOVIE YOU'VE EVER SEEN

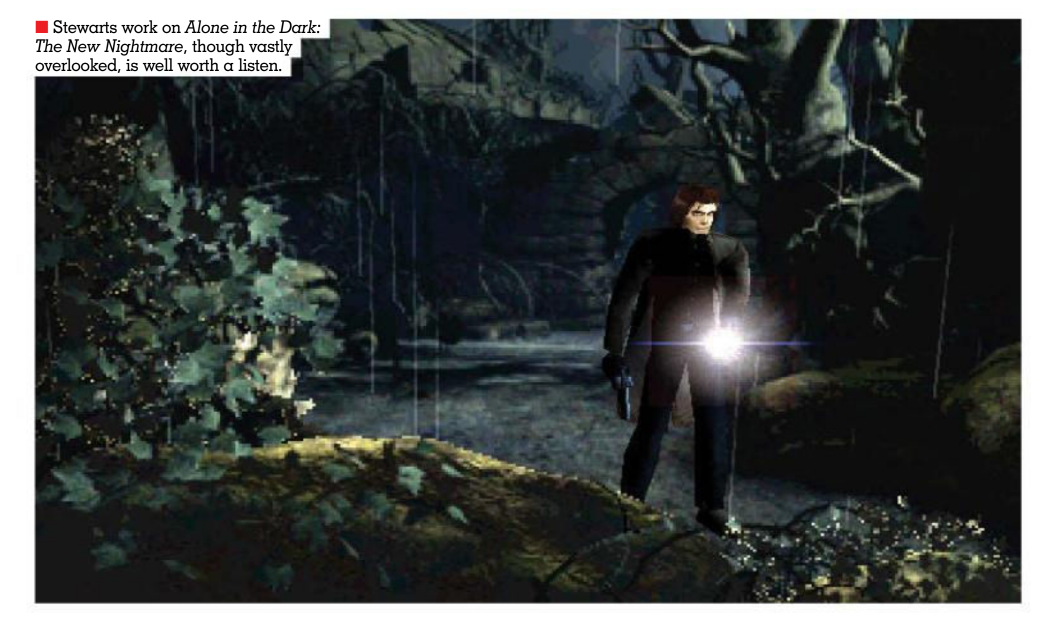
What was it like working with Insomniac Games during your time on the series?
Like any client, they were all over me at the beginning to get the tone right, while the first few tracks were judged by a committee and it went back and forth, leading to debates and discussions. Then gradually they left me alone. So after the first few meetings with Insomniac Games I saw very little of them.

Do you think you'd ever return to games?
It depends on the game. Games are really big time now. I did the original *Spyro* on a small budget on two samplers, and now they do it with full orchestras and it's a huge symphonic score with massive resources thrown at the music. Games can now end up sounding like the biggest movie you've ever seen. I wouldn't enjoy that as much, because all of that orchestration is really hard work, and that's my day job right now. A game I would say yes to would be one that had music on the same level as Spyro, where it's just cheap and cheerful, where you bang them out and you get on a roll and it's got a groove, atmosphere and a vibe that doesn't require a big orchestra. That's the kind of thing I would get into.

Do you think that simplified music can still be as effective as big budget soundtracks?
Absolutely. I see it like live-action film vs animation. When you simplify the image, it has a different kind of impact. When you distil the image and place limitations on it, it ends up having more power. This is the same for all art.

What was your favourite film that you composed for?
My most well-known is *Wall Street*, but my favourite is called *Very Bad Things* from 1998. It contains less music than I wrote for it, but I could watch it again and again. It's the blackest of black comedies. Check it out!

Do you still hear from Spyro fans?
Yeah, on Facebook there is a lot of traffic about Spyro, almost to the same level of traffic that is interested in The Police. Whenever I post something on Facebook a percentage of fans will ask when The Police are going to tour again, a percentage of them ask when Oysterhead is going to return, while a percentage tell me how much they loved the music of *Spyro*.


Stewarts work on *Alone in the Dark: The New Nightmare*, though vastly overlooked, is well worth a listen.

THE RETRO GUIDE TO...

Code Masters

THE 8-BIT BUDGET YEARS

Stretching back 30 years, discover the many budget games that created the legacy of one of the UK's most established publishing houses

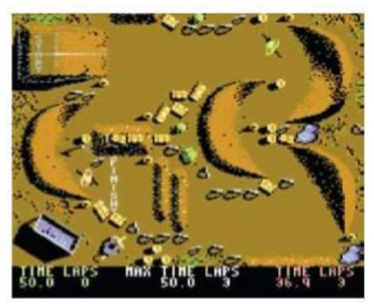
CODEMASTERS HAS BECOME one of the most established names in the UK games industry and has been running for a staggering 30 years. Famed in recent times for its racing games, it's been responsible for a number of notable driving franchises, including *TOCO*, *Colin McRae* and the *GRID* series and has never been afraid to dabble in other genres too with various degrees of success.

The Codemasters story actually begins in the early Eighties with Richard and David Darling. Fascinated with computers from an early age, they fell in love with coding and were soon making games, first for Mirrorsoft and Jetsoft and then for budget Kings Mastertronic. Rather than spend their money on whatever teenagers were interested in in the early Eighties, the brothers instead decided to create their own budget label, which would focus on quality.

BMX Simulator was the first Codemasters game to be released, a fun clone of *Super Sprint*, but with BMX bikes instead of racing cars. It was to become the first of many simulator games that Codemasters released during these early golden years. Codemasters was also the master of spin, having slogans on its games stating them to be 'absolutely brilliant' and bestowing many other accolades.

The early success of Codemasters must also be attributed to the Oliver twins, who the Darlings met during an ECTS show and had a similar work ethic to the Darlings. They created a huge output for Codemasters, including the popular *Dizzy* series. Join us then, as we concentrate on the budget period that helped build the Codemasters we know today.





BMX SIMULATOR 1986

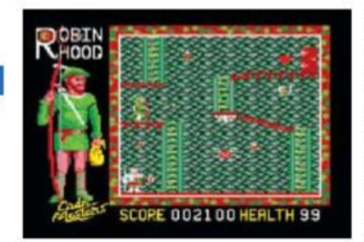
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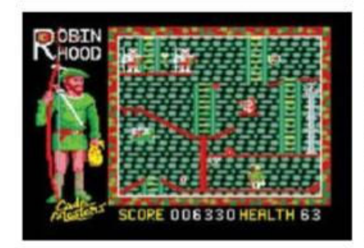
This gem of a game was coded by Richard Darling and would be the first of many simulator titles that Codemasters would churn out in the following years. It's essentially a clone of *Super Sprint*, but with a BMX theme and a thumping good tune from David Whittaker. The lack of power-ups is a pity, but it features a fun two-player mode and a neat slo-mo option.

SUPER ROBIN HOOD 1986

AMSTRAD, C64, SPECTRUM

Super Robin Hood is notable as it makes the first of many Codemasters collaborations with the Oliver twins. Originally created for the Amstrad, it features digitised speech, a sprawling castle to explore and plenty of enemies to kill. Robin takes enemies out with arrows and must run around searching for hearts to restore his health. It became the Oliver twins' first number one game and was soon ported to other systems, including an eventual NES port. It's a little basic nowadays, but still proves to be entertaining.







TERRA COGNITA 1986

AMSTRAD, C64, SPECTRUM

In this shooter you have to travel as far as possible, whilst shooting down enemies. There are numerous tiles in the game that destroy your ship, extend its dwindling fuel supply or add bonuses like points and speed-ups. Just watch out for the annoying time shift tiles as they send you back to the start.

GHOST HUNTERS 1987

AMSTRAD, C64, SPECTRUM

Ambitious is the best way to sum up the Oliver Twins' follow-up to *Super Robin Hood*. It runs on a modified version of the same engine and features similar platform mechanics. The difference however is that pressing fire moves control over to an onscreen cursor, which you use to shoot enemies. It's a neat idea but too clunky in practice.



ARMOURDILLO 1987

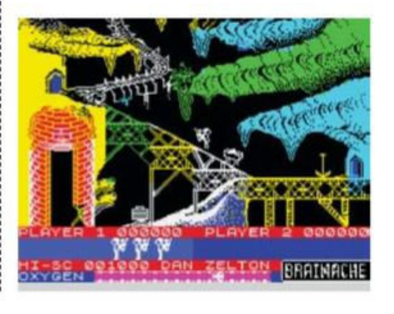
C64

This interesting shooter is aesthetically stunning but far too difficult for its own good. The aim is to wait for pods to fall to the planet's surface so you can tow it to safety. It's as boring as it sounds and is riddled with unfair difficulty spikes. Great music, though.

BRAINACHE 1987

AMSTRAD, ZX SPECTRUM

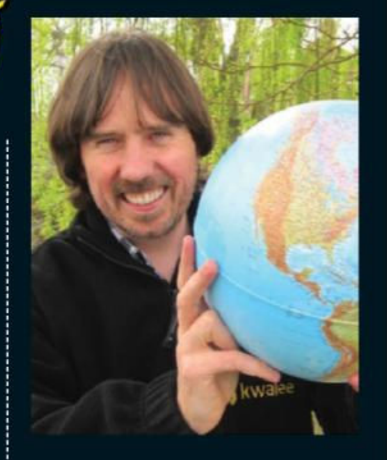
Terrible is the best way to sum up *Brainache*. The graphics will make you want to tear out your eyes; the awful sound effects will convince you to perforate your eardrums; while the gameplay is so stodgy and glitchy that you'll soon wish you had a time machine to stop yourself from ever playing this. Exploring a gigantic cave might sound like an interesting premise, but the actual execution is awful. Budget in every way.





RICHARD DARLING LOOKS BACK

Codemasters' co-founder on how it started



So why did you call it Codemasters?
Me and Richard were programmers to begin with. So it was us being the masters of the code.

Tell us about the company...
Launching Codemasters was really fun. We had also been working with Mirrorsoft in the early Eighties but just like at Mastertronic, we couldn't do what we wanted to do and the games we wanted to do. When we ran Galactic Software we had our own publishing company and we liked that. It was good when we spent a year doing the first games at Codemasters. We launched the company with 12 games. It was September 1986.

Why did you make so many simulators – *BMX Simulator* was your first game, wasn't it?
It was really when me and Richard used to work and make games for Mastertronic. We commissioned lots of games from other programmers and most of the games were about science fiction because a lot of programmers were interested in it. They would make up science fiction stories and make space-orientated games and stuff based around fantasy. But when we analysed the sales figures at Mastertronic we realised it was games like *BMX Racers* that had been selling well. Richard wrote that game and at that stage, lots of kids were interested in BMX bikes and skateboarding. We thought programmers should not make games they were interested in but games that players were interested in and so when we formed Codemasters we wanted to code games that would have wide appeal. So we had *Grand Prix Simulator* and even *Fruit Machine Simulator.*

FRUIT MACHINE SIMULATOR 1987

VARIOUS

The most notable thing about this game is that it appears to be the only Codemasters release on the BBC Micro. Other than that, it's a simple fruit machine with a relatively straightforward interface and plenty of flashing elements. Although, once the realisation sinks in that you can't actually win money on it, it does take on an air of pointlessness past the first five minutes of frenzied gambling.





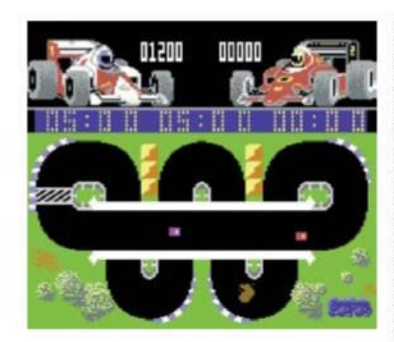
3D STARFIGHTER 1987

AMSTRAD, ZX SPECTRUM

Originally known as *C.H.A.O.S.*, the Oliver twins' game had to be changed at the last minute when they discovered another game with the same name. The game itself is a standard into-the-screen shooter with fastish sprites and very little else. It becomes more fun with a second player, but it hasn't stood the test of time well.







GRAND PRIX SIMULATOR 1987

AMSTRAD, C64, ZX SPECTRUM

More simulator shenanigans, this time from the Oliver twins. It's effectively a home version of Super Sprint, but with completely different levels, some fairly decent digitised speech and an impressive range of tracks. It's okay, but is let down by some truly ferocious AI on later levels.

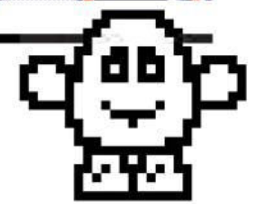
DIZZY 1987

AMSTRAD, C64, ZX SPECTRUM

Dizzy is the very first franchise that Codemasters had. Created by the Oliver twins, it's a decent arcade adventure where you must collect items to create a potion to destroy an evil wizard. While the gameplay is very entertaining it does feature a hideous trap that actually makes the game impossible to complete. Still, it's definitely worth a play if only to check out the origin of this iconic gaming character.



"DIZZY WAS THE VERY FIRST FRANCHISE THAT CODEMASTERS HAD"







PROFESSIONAL SKI SIMULATOR 1987

AMSTRAD, C64, ZX SPECTRUM

After having a ski holiday in Austria, the Oliver twins felt it would be the perfect subject for a videogame. While the graphics (inspired by *Marble Madness*) are impressive for the time, the actual gameplay is a little sluggish and you spend as much time battling the controls as you do your opponent.

BLADE WARRIOR 1988

AMSTRAD, ZX SPECTRUM

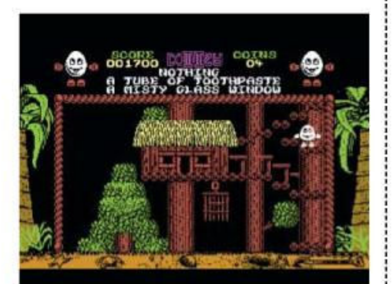
Despite the name, you don't get to use a sword in this game; instead you have to leap from platform to platform avoiding small critters and dangerous inanimate objects. It's a tediously dull affair not helped by some grossly unfair collision detection that makes even the simplest of jumps a horrible challenge.

TREASURE ISLAND DIZZY 1988

VARIOUS

Dizzy was a slow burner but its sequel stormed straight to the top of the charts. It builds upon the mechanics first seen in the original game, but there's a bigger focus on puzzle solving this time around. The inventory system has also been changed, but if care isn't taken you can lose an item at the wrong time and lose a life. This is particularly relevant as, unlike the first game, you only get one chance to complete the game.





JET BIKE SIMULATOR 1988

AMSTRAD, C64, AS SPECTRUM



Jet Bike Simulator was one of the first games in Codemasters' new Plus range. The games typically cost £4.99 but came in a double cassette box with an additional tape – expensive, but still half the price of many full price games. Sadly, *Jet Bike Simulator* wasn't a good advocate for the new range, being a variant of *Super Sprint* with a watery theme and an additional tape of expert courses. Thankfully, a better Plus game was around the corner...

PROFESSIONAL BMX SIMULATOR 1988

AMSTRAD, C64, ZX SPECTRUM

Richard Darling's sequel massively improved on his original 1986 hit. There were three different types of courses on offer and it was also possible to change the chain and wheels on your bike. Best of all, though, was an all-new four-player mode. This was another Plus game, but far better value for money, and with excellent presentation

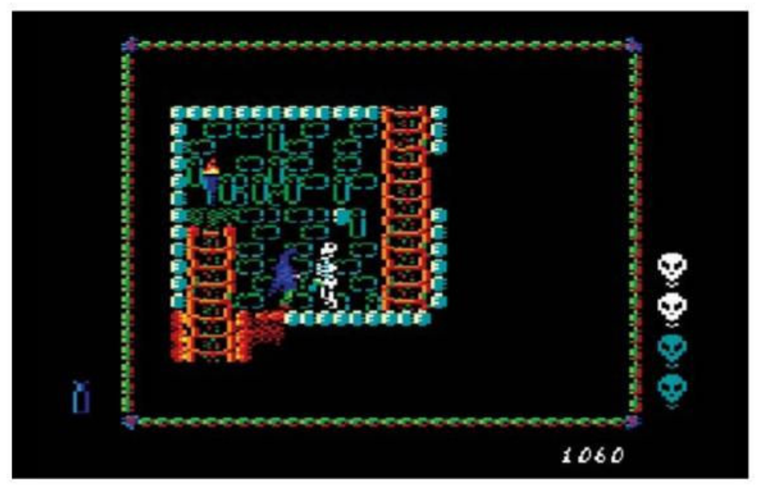


ROCKSTAR ATE MY HAMSTER 1988

VARIOUS



This wonderful spoof from Colin Jones allowed you to create a rock band and steer them to superstardom. It featured hilariously dodgy caricatures of some of the world's biggest stars with new names like Dorrissey, Rick Ghastley and Wacky Jacko. It remains one of Codemasters' most enduring and entertaining games.

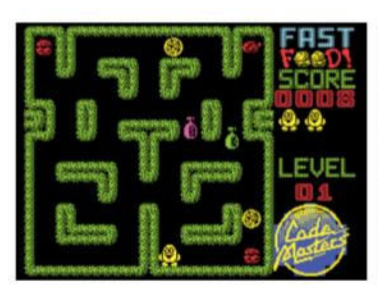


DEATH STALKER 1988

AMSTRAD, ZX SPECTRUM

The most novel aspect of *Death Stalker* is that it utilises line of sight, so you can't see behind doors until you open then. Other than that, it's a fairly straightforward adventure game that earns points for a truly atmospheric score, but loses them due to its dodgy combat. Oh, and a lost C64 port was discovered in 2012.





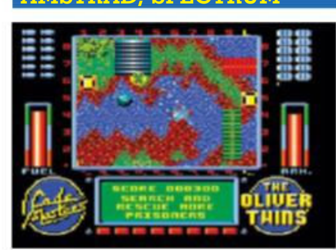
FAST FOOD! 1989

VARIOUS

Fast Food proved that *Dizzy* was a pliable enough character to star in things other than adventure games. It's basically a *Pac-Man* clone – the Oliver twins are huge fans of Namco's game – with 30 mazes to conquer, numerous power-ups that will give you the edge over your enemies and some amusing cutscenes.

OPERATION GUNSHIP 1989

AMSTRAD, SPECTRUM



Best described as a top-down version of Choplifter, this is a complex shooter from the Oliver twins and requires you to seek out and rescue P.O.W.s while avoiding incoming enemy fire. Your attack helicopter has access to several weapons and the control system is quite novel. Sadly, it's let down by some rather juddery scrolling.

"OUR NEW CHARACTER NEEDED AS BIG A FACE AS POSSIBLE TO SHOW OFF HIS EXPRESSIONS"



FANTASY WORLD DIZZY 1989

VARIOUS

This enjoyable adventure really refines the best elements of the *Dizzy* games. It once again gives you multiple lives, has a far stronger focus on logical puzzles and greatly refines the inventory system. Best of all it expands Dizzy's family, introducing the Yolk Folk, which enhances the Dizzy universe. It's perhaps a little bit too hard in places, but the greatly enhanced graphics and larger playing areas ensured it was another gigantic success for the twins.

ARCADE FLIGHT SIMUALTOR 1989

AMSTRAD, C64, ZX SPECTRUM





Fans of Atari's 2600 hit *Combat* will be well served here as it's essentially more of the same. Sure, you can now take off, alter your altitude and refuel at certain points of the game, but this is still an arena-based shooter where you must take down enemies as quickly as possible. Needless to say, like *Combat*, it becomes a lot more satisfying when played against a human opponent.

FEELING DIZZY

Philip Oliver discusses an 8-bit icon

Let's start with the most important question: Why make Dizzy an egg?

In Ghost Hunters we had this really nicely animated man, but his face was 3x3 pixels with only four colours – there's not really a lot you can do with that. We quickly decided that our new fictional character needed as big a face as possible in order to show off happy, sad and scared expressions. Since the computers of the day were very slow, the whole character could only be 24 pixels by 32 pixels, which quickly led us to a character that was practically all face, leaving just enough room for some gloves and boots to help him get around and interact with his fantasy world.

What made you decide to put him in an adventure game?

When we created Dizzy we wanted to create an adventure with fantastic places to explore, characters to meet and puzzles to solve. We had just had huge commercial success with *Super Robin Hood* and therefore wanted to use the same platform format since we'd not only already programmed this but knew players liked this type of game. The puzzles were grounded in stories and scenarios that everyone would be familiar with. We didn't want obscure puzzles based on physics or maths because it was important to us that younger players weren't disadvantaged. We wanted interesting, fun



puzzles, so we took inspiration from classic tales and fables.

What were the sales like?

When *Dizzy* was released, nobody really knew about it and, to be honest, the box artwork was fairly poor. It took time for word of mouth to spread and sales to pick up. Once people started to play it, though, they seemed to engage with it and we soon gathered quite a following.

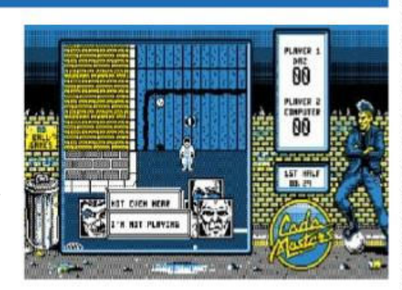
Why do people have such fond memories of Dizzy?

I think the *Dizzy* games are remembered fondly because people had to think about the worlds and characters we created and, like a good book, people's imagination was let loose. What they were seeing was merely a small window into a fantastic magical world full of adventure, with interesting places, characters and stories to explore. The basic nature of the graphics in those days meant that gameplay was all, so if you gave people fun they'd keep coming back for more. It's very easy for developers to forget that these days.

STREET GANG FOOTBALL 1989

AMSTRAD, ZX SPECTRUM

You've not experienced a truly terrible game until you've played *Street Gang Football*. The collision detection is ropey, the scrolling is laughable, while it's increasingly hard to select the footballer you want. In fact, it's so poor the actual players get in heated arguments over scored goals and refuse to play, abruptly ending the game.





PUB TRIVIA 1989

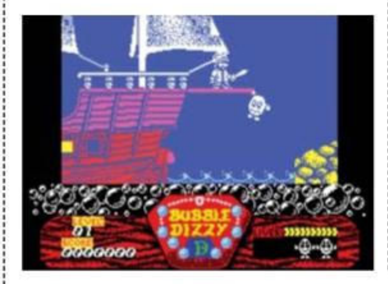
AMSTRAD, C64, ZX SPECTRUM

This is a surprisingly solid trivia game, offering you a large number of multiple choice answers. You're obviously up against the clock and as you climb higher on the board the questions get surprisingly tough. It caters for up to four players and also features three blocks of questions, so repetition shouldn't become an issue.

MAGIC LAND DIZZY 1990

VARIOUS

This is the first of three *Dizzy* adventures in 1990 (the Oliver twins would start contracting the series out to Big Red Software to keep up with demand). Dizzy now has an energy bar, which makes survival far easier than before. It's otherwise another slick adventure with some surprisingly great puzzles.



PRO GOLF SIMULATOR 1990

AMSTRAD, ZX SPECTRUM

This is a very comprehensive golf game, particularly for its £2.99 price point. You can practice your swings or putts (which admittedly takes a while to master) and then take part in a competition for up to three other players. Best of all there's a golf editor that enables you to create your own courses.



BUBBLE DIZZY 1990

VARIOUS

The idea behind this arcade game is simple, but the execution is just so fiddly. Essentially, you're simply trying to rise from the bottom of the ocean by jumping on bubbles and avoiding the ocean's many deadly sea creatures. Sadly, overly tricky controls and randomly popping bubbles are more frustrating than enjoyable.





WACKY DARTS 1990

AMSTRAD, C64, ZX SPECTRUM

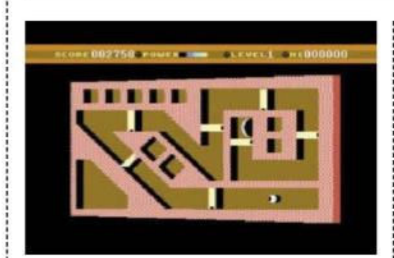
The wackiness refers to your opponents, who throw shurikens, axes and other weapons at the dartboard as they play. To reflect the difficulty of the real game, the developer used a constantly moving disembodied hand that you have limited control over. It's a nice compromise.



LITTLE PUFF IN DRAGON LAND 1990

VARIOUS

Although it replaces a walking egg with a dragon, this is still a *Dizzy* game, albeit an incredibly basic and boring one. While the available puzzles are extremely simple to work out, it's let down by the fact that there's only a single life. An equally pointless sequel arrived in 1992.



TILT 1990

C64, ZX SPECTRUM

This puzzle game by Stephen Walters is simplistic but incredibly addictive. Simply tilt the maze to roll the ball to the exit while using the fire button to open gates. It's basic, sure, but like many seemingly simple games, it's rather addictive and becomes incredibly hard to stop playing once you get the hang of it.

CJ'S ELEPHANT ANTICS 1991

VARIOUS

This platformer by Jonathan Smyth is tremendous. It's effectively a great clone of the popular arcade game *The New Zealand Story*, but with a cute elephant in lieu of a cute kiwi. Oh and it has a cracking simultaneous two-player mode too.





SEYMOUR AT THE MOVIES 1991

VARIOUS

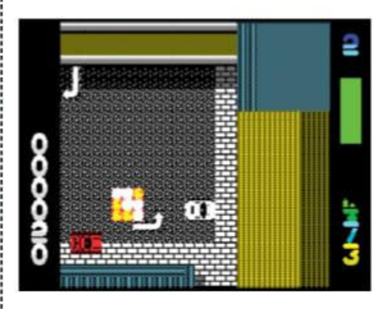
According to *Zzap! 64* magazine, this was originally going to be a *Dizzy* game until Codemasters got cold feet about putting him in a real world location. Once you're aware of that fact, it's easy to see the similarities, as *Seymour At The Movies* shares many of the mechanics of the later *Dizzy* games, including a three-item inventory system and energy bar. It's a little easy, but enjoyable all the same, with great punchy sprites.

MIAMI CHASE 1991

VARIOUS

The most notable thing about *Miami Chase* is that it was created by Team 7, later known as Team 17, the creator of *Worms*. It's otherwise a completely naff top-down version of Chase H.Q. that requires you to race around the tiny city looking for a suspect car to crash into. A poor game with incredibly twitchy controls.





PARIS TO DAKAR 1991

ZX SPECTRUM

This is a solid little racing game that lets you choose whether to drive a truck, mini metro or motorbike, all of which rather refreshingly handle quite differently to each other. The bike is by far the most challenging to use as it's extremely fast and takes damage very easily, making it best left for more experienced players.

1ST DIVISION MANAGER 1991

AMSTRAD, C64, ZX SPECTRUM

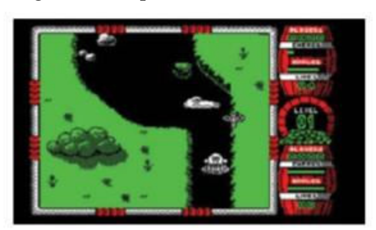
Codemasters' first football manager simulator is pretty lacking. The menu interface is pretty decent, but the match highlights are incredibly naff using horrible stickmen and ugly colour schemes. It offers very little beyond *Kevin Toms' Football Manager*, which was nearly a decade older.

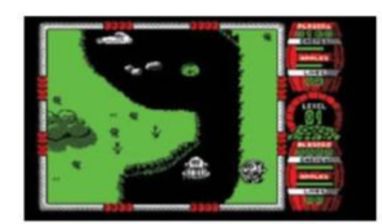


DIZZY DOWN THE RAPIDS 1991

VARIOUS

Dizzy once again gets shoehorned into a non-adventure game and it's once again not very good. The idea is to float down the rapids while chucking apples at enemies. The concept is sound enough (it's a riff on the excellent arcade hit *Toobin'*) but it's let down by poor controls and a high difficulty level.



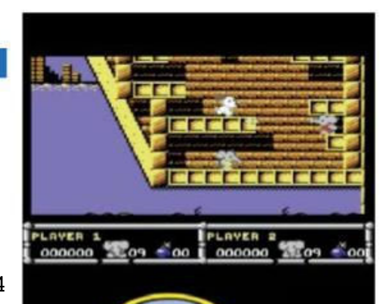


> "SEYMOUR AT THE MOVIES SHARES MANY OF THE MECHANICS OF THE DIZZY GAMES, INCLUDING A THREE-ITEM SYSTEM AND ENERGY BAR"

CJ IN THE USA 1991

VARIOUS

The popularity of the first CJ meant another arrived a few shorts months later. While it mostly sticks to the same formula as before, it's not quite as polished and the controls aren't quite as tight. The level structure is also more maze-like which gets quite frustrating. The C64 version is the one to go for.



BUDGETING TO THE EXTREME

How to cut costs and stand out from the crowd

Back in the Eighties a company would think nothing of re-releasing its hit games in compilations. While some of the bigger compilations of 50-odd games were typically filled with rubbish, there were more than enough publishers out there who did release compilations of value. Codemasters was no exception, but it did things a little differently.

While other companies continued to release compilations in tape form the Oliver twins came up with a novel way to run games on a CD, by connecting a CD player to the joystick port of an 8-bit computer. This was deemed revolutionary and the CD's storage space meant an impressive 30 games could be included. Games could be loaded incredibly quickly and were easier to find too. Sadly, the compilation didn't sell well, with the twins concluding that the owners of said CD players had left their 8-bit systems in favour of the Amiga and ST.

As well as releasing traditional compilations, mainly revolving around Dizzy, Codemasters also introduced the Quattro range, which featured four games for a reasonable £2.99. The brand even made its way over to the NES, which again instantly set Codemasters apart from its peers, because such compilations were rarely seen on the system.





TARZAN GOES APE 1991

C64, ZX SPECTRUM

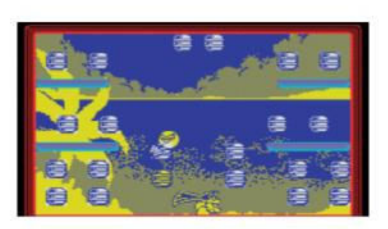
Tarzan's been turned into a monkey by a witch doctor who won't change him back until a specific number of items have been collected. While the graphics are nice and cartoony, Martyn Hartley's game suffers from poor collision detection – you can fall through floors – and a high difficulty factor.

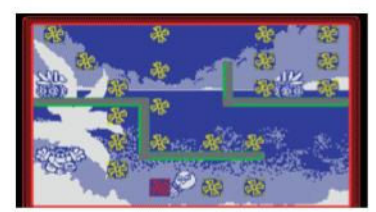
MOUNTAIN BIKE 500 1991

AMSTRAD, ZX SPECTRUM

Mountain Bike 500 borrows heavily from *ATV Simulator* – you and your bike need to traverse lots of different environments. Sadly, the game is needlessly difficult due to your biker snagging on seemingly safe objects.







SUPER SEYMOUR 1991

ZX SPECTRUM

Unlike many of Seymour's other games, this is a straightforward arcade romp. It's basically Codemasters taking a *lot* of inspiration from *Bomb Jack* and it's pretty good too. The levels are well designed and you'll get multipliers if you collect items in the right order. The only downside is sprites are overly big, which can make some sections a little tricky.

SKY HIGH STUNTMAN 1991

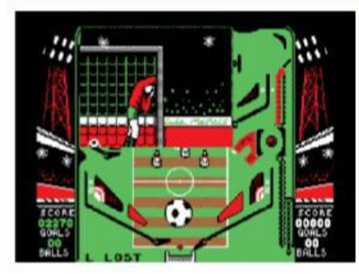
VARIOUS

Don't be fooled by the stuntman theme, this is just a shoot-em-up and a rather straightforward one at that. While your craft is relatively nippy, its actual firing is rather sluggish, which makes shooting something of a chore. It doesn't help that the ridiculous fast enemy bullets are exceptionally accurate.



SOCCER PINBALL 1992

VARIOUS



It sounds like a ridiculous concept, but combining football with pinball works well. The table is set up like a football pitch with a number of defenders and a goalie. Once you've knocked all the defenders out of the way you can take a shot at goal. It's works surprisingly well, but is let down by some weak physics and juddery ball movement.

SLICKS 1992

C64, ZX SPECTRUM



Easily the best top-down racer that Codemasters released. There's a strong collection of tracks on offer, the AI is challenging but always fair, while the graphics are very detailed. In addition to an excellent Grand Prix mode, there's also an excellent one-on-one mode that is essentially *Micro Machines*. As Codemasters would say, it's absolutely brilliant.

STUNTMAN SEYMOUR 1992

VARIOUS

This is essentially just a CJ game, but with Seymour standing in for the popular elephant. While it features some very nice scrolling and great visuals, the actual level design doesn't feel as tight as the original CJ outing. It's also a little tougher due to some questionable collision detection.



ROBIN HOOD: LEGEND QUEST 1992

VARIOUS

Although the Spectrum version suffers from terrible attribute clash, this remains a very solid platformer. The action is nice and fast-paced, and there are plenty of items for the player to collect. Keys open up new areas of the castle too, meaning exploration is always rewarded. Like many of Codemasters' later games it had a £3.99 price tag.





CRYSTAL KINGDOM DIZZY 1992

VARIOUS

It's fitting that one of the last Codemaster's games released for 8-bit home computers (it came out in December) was a *Dizzy* game. Despite being another entertaining adventure with lovely cartoon visuals and clever puzzles, *Crystal Kingdom* also came with a £10 price tag, meaning the budget days of Codemasters were well and truly over.

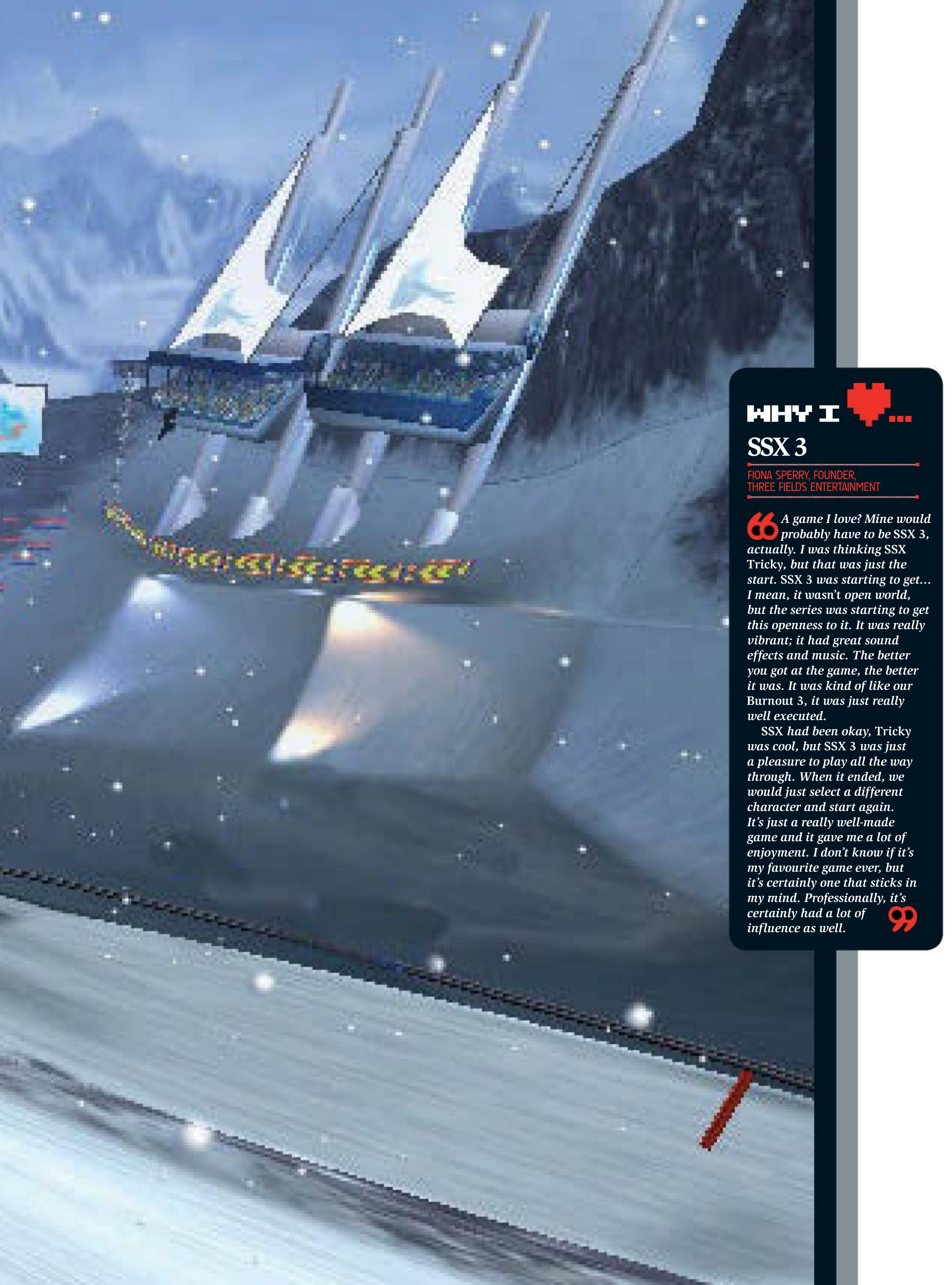
MORE TO TRY

- INTERNATIONAL RUGBY SIMULATOR, VARIOUS, 1988
- MONTE CARLO CASINO, VARIOUS, 1989
- NINJA MASSACRE, VARIOUS, 1989
- SAS COMBAT SIMULATOR, VARIOUS, 1989
- ITALIAN SUPERCAR, VARIOUS, 1990
- DIZZY: PRINCE OF THE YOLKFOLK, VARIOUS, 1991
- GRELL AND FELLA, VARIOUS, 1992



“SSX had been okay, Tricky was cool, but SSX 3 was just a pleasure to play all the way through”

FIONA SPERRY, FOUNDER, THREE FIELDS ENTERTAINMENT



WHY I ♥...

SSX 3

FIONA SPERRY, FOUNDER,
THREE FIELDS ENTERTAINMENT

A game I love? Mine would probably have to be SSX 3*, actually. I was thinking* SSX Tricky*, but that was just the start.* SSX 3 *was starting to get… I mean, it wasn't open world, but the series was starting to get this openness to it. It was really vibrant; it had great sound effects and music. The better you got at the game, the better it was. It was kind of like our* Burnout 3*, it was just really well executed.*

SSX *had been okay,* Tricky *was cool, but* SSX 3 *was just a pleasure to play all the way through. When it ended, we would just select a different character and start again. It's just a really well-made game and it gave me a lot of enjoyment. I don't know if it's my favourite game ever, but it's certainly one that sticks in my mind. Professionally, it's certainly had a lot of influence as well.*

BEHIND THE SCENES

GHOSTBUSTERS II

As the Ghostbusters franchise is given a 21st Century reboot, we aim our proton pack energy streams towards the game that looked to tie-in with the 1989 sequel



Released: 1989
Format: Amiga, Amstrad CPC, Atari ST, Commodore 64, ZX Spectrum
Publisher: Activision
Key Staff: Stefan Ufnowska (director), Anna Ufnowska (writer), Colin Reed (programmer), Steven Green (artist), Philip Oliver (8-bit conversion), Andrew Oliver (8-bit conversion)



■ Philip Oliver has been having a rummage around his loft, managing to find the original media on which *Ghostbusters II* was partly developed.

GHOSTBUSTERS II ON the 8-bit and 16-bit home computers had a problem: It had nothing to do with the film. It began to receive mixed reviews; almost an inevitable situation, given the high quality and popularity of the original supernatural comedy and the limits of video games in the late Eighties. It didn't have anything to do with the quality of the game's graphics, either, for they were largely excellent. Nor was it the audio: there was an excellent rendition of the Ghostbusters tune. The game even included digitised stills from the movie. But there was a problem nonetheless.

In issue 28 of *ACE* magazine, published by EMAP, reviewer Brian Nesbitt took issue with the game's three, relatively short levels on the home computer versions. Although they were rather varied, not to mention difficult – which meant gamers would end up playing each one for a while before cracking them – the magazine clearly wanted more bang for its buck and it was, as you'd expect, unafraid to state its feelings.

The reviewer said the game "fails to succeed both as a film conversion and as a game in its own right". He added: "Interestingly enough, the film was originally going to be called *The Last Of The Ghostbusters*. After this, I hope it is." Further damning *Ghostbusters II* as a turkey and slamming it for having arrived on three disks (four on the Atari ST), the magazine awarded the game a paltry 251 out of 1,000. It caused a storm which blew all over the trade press at the time and proved to be hugely embarrassing for a gaming franchise that had debuted so well five years earlier.

The real issue is that there were actually three versions of *Ghostbusters II*: a difficult, single-player side-scroller for the NES that had been created by Imagineering; a cool action release created in three months by Dynamix for DOS and a home computer version developed by Foursfield that saw a release on the Amiga, Atari ST, Commodore 64, Amstrad CPC and ZX Spectrum. It was this latter version that *ACE* had cast its eyes over, most notably for the 16-bit computers. In all cases, the games were published by Activision, who had secured the movie licence from Columbia Pictures. "The licence was acquired by Activision as part of an arcade deal – it might even have been the US side," says Charles Cecil, Activision's development manager at the time.





■ The developers wanted to capitalise on the familiarity of the film's characters and make it clear the game was very much based upon the movie.



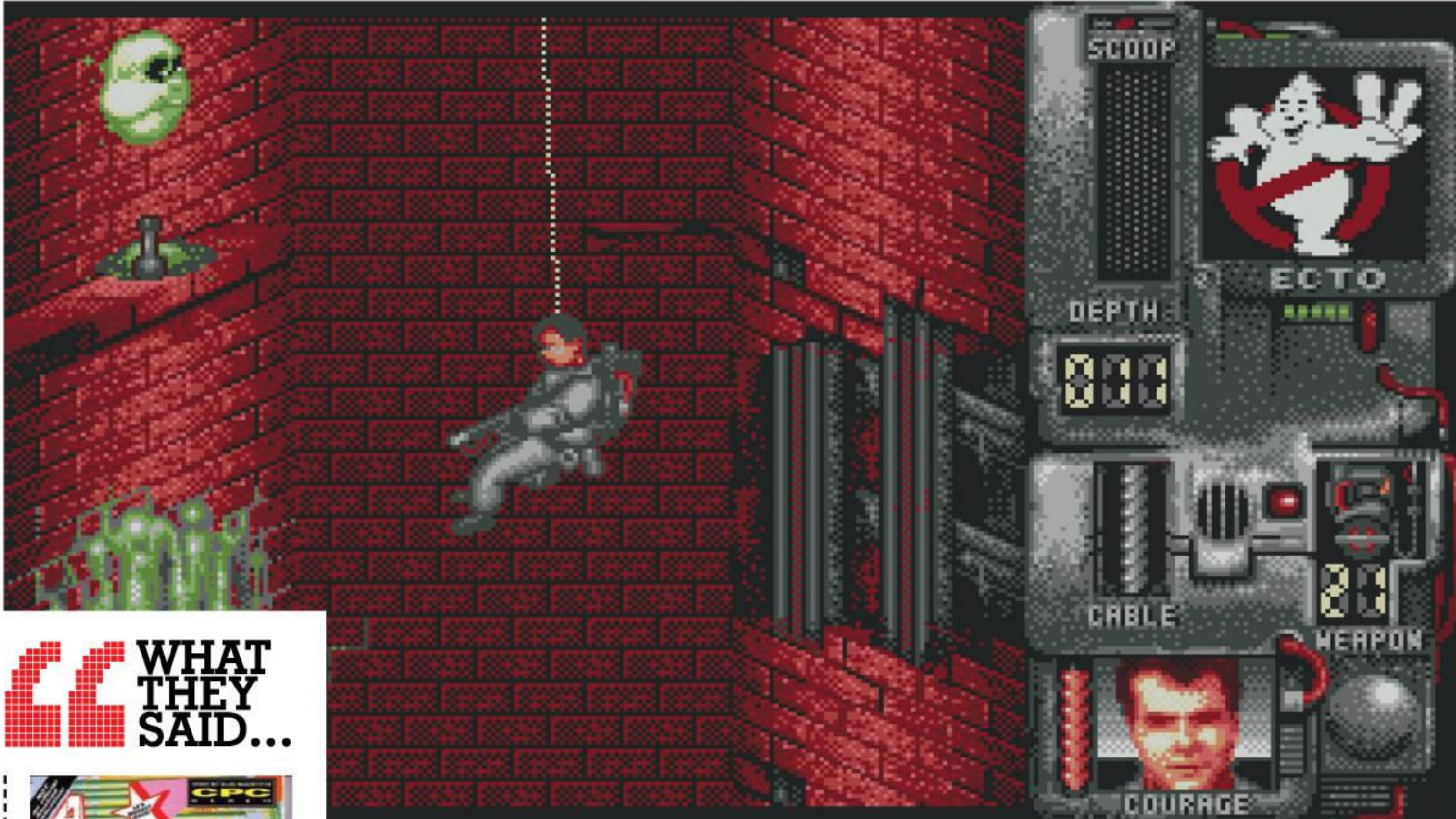
■ The famous Statue of Liberty scene was captured for the final game.

SADLY IN THE MOVIE THIS SCENE WAS SHORT AND THEY REMOVED ANY GHOSTLY APPARITIONS

The idea was for the film to be released in the summer of 1989 and for the game to follow shortly afterwards in the expectation that it would become a great autumn and holiday season seller. The previous *Ghostbusters* game, from 1984, had sold more than two million copies and had become the best-selling game of all time – a title it still held five years later. There was a great weight of expectation for the sequel and there had been hope among players that David Crane, who created the first game, would be on board for the sequel.

It wasn't to be, but Activision was confident that Foursfield, a relatively small developer based in Warminster near Trowbridge, would be able to pull it off. The developer consisted of a husband and wife team, Anna and Stefan Ufnowska, talented programmer Colin Reed, and accomplished artist, Steven Green, each of who had worked on the acclaimed isometric maze game *Incredible Shrinking Sphere*, a title that Philip and Andrew Oliver – aka The Oliver Twins – had converted to the 8-bits.

"Activision had worked with Stefan on a number of projects and the most memorable, for me, was The Incredible Shrinking Sphere," says Cecil. Similar to Marble Madness and Spindizzy, the game involved guiding a ball through levels, collecting weapons and making use of various squares. The Amiga version had achieved 923 out of 1,000 in ACE and it had scored more than 80 for other systems (the poor CPC version excepted). There was no doubting Foursfield's



WHAT THEY SAID...

"At last the Ghostbusters have come of age and star in a game worthy of their name. Humour pervades but not at the expense of action."
Amstrad Action, 1990

credentials. But in developing *Ghostbusters II* for the Amiga, Atari ST and Commodore 64, the team not only had just six months in which to complete the game, it also had to work "blind".

Starting in February 1989, Anna Ufnowska said the team had little else to go on except the movie script – an unavoidable situation, as the film was still in production when work on the game began. It meant none of the title's programmers, designers or artists had the benefit of seeing the film, forcing the Ufnowskas to look for scenes which they felt would work well and concentrate on those.

As such, the first decision had to be how many of those scenes it would be able to include and how best to visualise them. Initially, consideration had been given to creating four levels for the game and, indeed, some previews in the gaming press suggested there would be four arcade-style scenarios, each of which would stress the comedy inherent in the movie. But instead it was decided the game would revolve around just three, unique levels, each one based on what was felt would be the main beats of the movie.

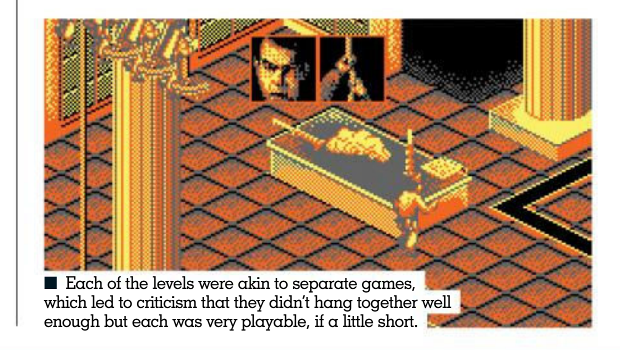
"Taking just two scenes from the movie, and producing just two small games would not have been enough, but four or more would have been prohibitively expensive and there simply wasn't the time available either," says Philip Oliver who, along with brother Andrew, had been quickly brought on board to continue their relationship with Foursfield, working on the Spectrum and Amstrad CPC versions.

The twins had needed no persuading to get involved in the project. "Stefan Ufnowska asked us if we'd like to convert *Ghostbusters II* and we jumped at the chance,"

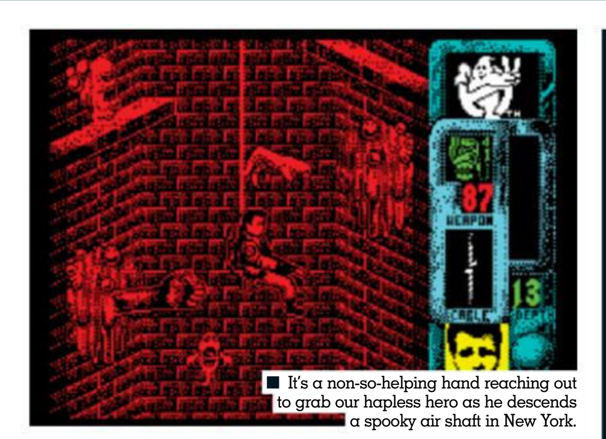
IN THE EIGHTIES, IF A GAME WAS EASY, THAT SUGGESTED IN SOME WAY THAT IT WAS INFERIOR

says Oliver. It was a busy period for the pair, who would end up juggling the programming of *Ghostbusters II* with coding *Jet Ski Simulator*, *Operation Gunship* and *Fantasy World Dizzy*, each for the CPC and Spectrum. But to speed up production, they would convert *Ghostbusters II* from the CPC to the Spectrum as they went along.

The Olivers' workload during this period entailed seven months of 18 to 20-hour days, seven-days-a week but the brothers had bags of energy (and, they admit, no social life at this time). Aged just 21, the twins had already mustered up a sizeable gameography and even



■ Each of the levels were akin to separate games, which led to criticism that they didn't hang together well enough but each was very playable, if a little short.


■ It's a non-so-helping hand reaching out to grab our hapless hero as he descends a spooky air shaft in New York.

spawned a much-loved character in Dizzy. But they were no strangers to ghostly goings on. "We were massive fans of *Ghostbusters* and it had inspired us to write another game, *Ghost Hunters*, a couple of years before," says Oliver. The pair worked from a four-bedroom house they had bought six months earlier in Trowbridge. They would drive the 15 minutes to Bratton, in the shadow of the Westbury White Horse, every few weeks to meet up with Foursfield where the team would comment on their progress, pass over assets and work on moving the game towards completion.

The Ufnoswkas decided the first level should be based upon a short scene in the film in which Dr Raymond Stantz is lowered down a manhole on the streets of New York in order to investigate some paranormal activity. While there, Stantz discovers a thick, oozing River of Slime and collects a sample, almost getting pulled under by gloopy ghosts in the process. For the developers, this movie scene appeared to be perfect gaming material and so it was translated into the player having to guide Stantz down past an assortment of unrelenting ghouls and ghosts. The aim was the same as the movie – to collect slime – but it would be possible to fire at the ghosts to shoo them away. "Sadly, in the movie this scene was short and they removed any ghostly apparitions," says Oliver. Yet it still made for an intriguing, fun opener.

To make it more challenging, the ghosts were able to scratch away at the rope supporting Dr Stantz in order to weaken it. There were also protruding obstacles, which would force the player to swing the ghostbuster away, usually into the path of a ghoul. It was certainly a tricky and original start to the game, given there was so much to consider, from collecting glasses and slime to amassing weapons and firing at the ghouls. Even when you reached the bottom of the air shaft, there was no let up; it was a case of heading straight back to the top to face a second onslaught. Even though the player could make use of a protective shield, it wasn't especially easy. Not only was the only hand-holding on offer some spooky hands reaching out to scare you half to death, you only had three lives.

"But the design was logical," Oliver says. "Descend the shaft, collect the slime, and then escape. To add gameplay we needed to put threats along the route." As for the difficulty, Oliver offers no apologies. "If a game was easy, in the Eighties, that suggested in some way that it was inferior," says Oliver. "Reviewers were expert game players and they dictated the opinion towards games through their reviews. If they found them too easy they often slammed them. That encouraged most game developers to target core players rather than casual."

One of the pleasant twists to this level was having an image of Stantz becoming increasingly terrified depending on what was happening to him within the game. As his courage visually ebbed away, it was up to the player to give him a boost or risk losing a life. It was a flourish replicated later with the other ghostbusters. "Dan Aykroyd, Bill Murray and Harold Ramis were massive Hollywood stars and it was important to see their faces," says Oliver. "We also did the 'team screen' which showed all their faces as large as possible."

Not that the frightened faces were especially difficult to create, for the Oliver Twins at least. "It was just another set of sprites," Oliver says. "We didn't think to hard or long about it. We had the 16-bit ST and Amiga versions of all the graphics created by Steve and we simply redrew each in Panda Sprites. It probably took us less than an hour." What did take longer, though, was working out ways to push ageing 8-bit technology. There was no doubt that the 16-bit





TELLING TALES

With three distinct levels, a way of creating a narrative was crucial

Foursfield had not seen *Ghostbusters II* when it began working on the game but it earmarked three scenes that it felt would work well. To help contextualise these levels for the players, Columbia Pictures agreed to provide a set of stills from the movie which were then captioned to set up each scenario.

LEVEL 1

Immediately, the game highlights that the action is taking place five years after the first movie. It explains that a buggy containing Dana's baby, Oscar, was almost crushed after being pushed into the road by a ghost, prompting Spengler and Stantz to investigate. After setting up some fake roadworks, it set the scene for Stantz to be lowered down an airshaft.





LEVEL 2

Having spotted the River of Slime, the next set of stills explain that it flows towards the museum. The 16th century tyrant and sorcerer Vigo the Carpathian is building power from people's evil thoughts and the ghostbusters need a way in. Cue the use of positively charged psychomagnotheric slime to bring the Statue of Liberty to life.

LEVEL 3

The final level was a little short on explanation – only one digitised image was used to set it up. Still, it said all it needed to, telling gamers that baby Oscar had been kidnapped by the enslaved head of the museum's Restoration department and that Vigo may need the child's body to be reborn. Succeed and Oscar survives.





The development team hang out outside their base at Shrewton Close as the game nears launch.

platforms offered some stark advantages over the CPC and Spectrum. This could be felt in the first level, certainly by Oliver, who says the Atari ST and Amiga were able to easily and smoothly scroll the screen, whereas the pixel-mapped screens of the 8-bits seemed more lethargic and so proved trickier to play. The difficulty in replicated the 16-bit experience showed how demanding the game actually was for the less powerful computers. Yet there was no faulting the ambition of what Foursfield was trying to achieve as it produced a game which it hoped would appeal to a full-price gaming market.

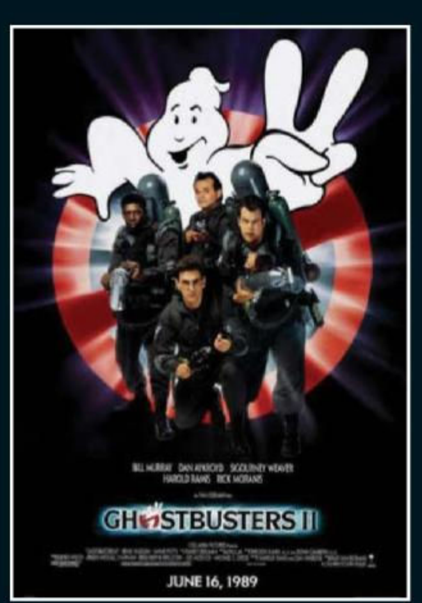
One of the accusations levelled at *Ghostbusters II* was that the levels were too dissimilar to each other and that the overall experience felt disjointed as a result. But this served to add variety, effectively giving three games in one, and the criticism actually glossed over the fact that the game was connected by a common theme: lots of green, gooey slime. This became a running enemy mechanic throughout the game and it lent the title a greater sense of coherence.

The second section involved marching the Statue of Liberty towards the Metropolitan Museum of Art, while aiming multi-directional fireballs at ghosts hellbent on stopping the robed figure in her tracks. The key component to this section was having the city's population scurrying after the slime left behind when a ghost was blasted, in order to replenish the statue's supplies.

"Since *Ghostbusters II*'s plot revolved around the energy contained in slime, it was this substance that the ghostbusters used to animate the Statue of Liberty," continues Oliver. "So this theme ran throughout the game as much as it did the film". Bringing the Statue of Liberty to life and walking it through New York was a key scene in the movie. "It made sense to turn this into a game," Oliver says. "The gameplay itself was based on classic, tried and tested horizontal-scrolling shooters, particularly the extremely popular *R-Type*."

STUDIO INTERFERENCE

If there's something weird and it don't look good…



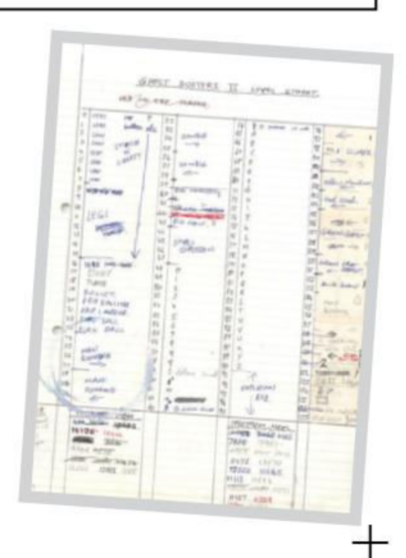
In general, Columbia Pictures did not get too involved in the development of the game, leaving it to the various games companies to interpret the movie in their own way. Activision would keep an eye on progress but there was a confidence at the publisher that the developers would pour their efforts into what was such a prestigious job.

The only real problem the studio caused for the team (aside from not having the movie ready before production of the game began) was indecision over the logo. "During production the film company couldn't decide on the final logo and we kept receiving different instructions on which to use," Philip Oliver recalls. "Was it the logo with or without that back foot?"

THERE HAD BEEN HOPE AMONG PLAYERS THAT DAVID CRANE WOULD BE ON BOARD FOR THE SEQUEL

In order to explain what was going on at each stage, movie stills and a small amount of text would aid the narrative and provide a second linking point. Columbia had handed the original images to Activision and Green converted them for use in the game. Green was also responsible for all of the 16-bit graphics which the Olivers converted to the Amstrad and Spectrum. How they translated to each platform was inevitably down to the capabilities of the computers, their resolutions and colour palettes.

On this score, reviewers and players, were unanimous in their appreciation. The graphics pushed the expectations of the Amstrad CPC in particular. Reviewers also enjoyed the audio, which had been professionally produced by David Whittaker. The result was actually, in hindsight, a game that was deeper than



> A GAMING EVOLUTION

Ghostbusters II > Batman: The Movie > Die Hard Trilogy



Ghostbusters II drew on different genres for its levels, like *Batman: The Movie* in 1989: driving, puzzles and platforming.



Die Hard Trilogy was a third-person shooter, an on-rails shooter and a driving game, another three games in one.







"Stilted, repetitive gameplay and the world's most ridiculous multiload conspire to totally scupper an exceptionally faithful and pretty film conversion.

Your Sinclair, 1990

many an Eighties movie tie-in, a lot of which would take several key scenes and turn them into relatively shallow games spread over many levels ("Depth was hard to achieve in movie games," says Oliver. "Developers would be tied to the film and that made the challenge of deeper gameplay hard to achieve"). This could be seen in the final section: an isometric 3D level which asked the player to control each of the four main characters as they faced various showdowns within the city museum.

"The final battle of the film takes place in the museum as Dr Janosz Poha attempts to release the spirit of Vigo the Carpathian, a powerful 17th-century tyrant and magician trapped in a painting in the gallery," Oliver explains of the decision to use this as the basis of the level. "Vigo orders Janosz to locate a child that Vigo can possess, allowing him to return to life on the New Year. Being the film's final climax, it had to be the game's final level. Foursfield had chosen to design this as a series of 3D isometric rooms that players had to run around in order to defeat Janosz, Vigo and protect the baby. This was a good idea but technically pretty tricky, especially on 8-bit computers." Again, slime played its part to great effect.

As the project neared its very end, the developers finally got to see the film. Having viewed the script and seen the stills, they had a solid idea of how it was going to work in principle but seeing it on the big screen was a chance to put the two works side-by-side. They had been invited to the media showing at Leicester Square in London. "It was a private viewing and we were sitting alongside film reviewers including Barry Norman, who was reviewing for *Film 89*," recalls Oliver. "By this point the game was pretty much finished, though."

As such, the game was wrapped up and readied for release (albeit it around a month late which Oliver says was because the 16-bit assets hadn't been delivered on time, which had a knock-on effect on the 8-bit versions). Buoyed by the popularity of the film, before certain criticisms, it sold well. To entice buyers, some freebies were given away – notably a free balloon and badge and, in the Computer Shop store chain, a *Ghostbusters II* frisbee. And then the problem of the *ACE* review reared its head. It was a strange that it caused such a furore, given that it wasn't the only poor review. *Zzap!* gave it just 39% and called it "a hotch-potch of sub-games which fail to gel into a good game". But the niggle of the write-up in ACE appeared to rankle the most.


There were loads of ghosts to contend with on the first level – here Stantz looks calm but when he gets a fright, his face sure shows it.


This opening level of the game was inspired by the famous sewer scenes from the movie.



Activision wasn't delighted with the review; neither was Anna Ufnowska, who wrote a letter to the editor that was published the following month. In it, she accepted that reviews were opinions but she objected to the claims about there being too many disks, saying there were actually only two Amiga disks and that four were necessary for the Atari ST to cater for owners of single-sided drives. She also pulled up the mag for the zero review given for the sound. *ACE* stood by its review but revised the audio to an eight. "Since this was the one bright spark in an otherwise gloomy review, it's doubly sad that we should have slipped up," it corrected.

The shots fired seemed to ignore the CPC and Spectrum versions, though. Although the three short levels were mentioned over and over, Amstrad Action gave *Ghostbusters II* a whopping 94 per cent and *Crash* handed it a respectable 74%. The cassette versions were hauled over the coals for being multiload games – it meant reloading the game over and over which, as anyone who has experienced such a thing will tell you, was a major pain. But in the longer-term – notably when it was given a budget £2.99 re-release on the Hit Squad label – it began to get the positive attention it deserved as more and more fans were gradually drawn to the game. "We thought the game captured the key scenes from the film really well and utilised the theme of the energy in the slime perfectly," Oliver concludes. So, it wasn't a game changing licensed release, but it was definitely a strong example of the genre.

GAME CHANGERS

ANIMAL CROSSING

Released: 15 September 2002 **Publisher:** Nintendo **Developer:** Nintendo EAD **System:** GameCube



Everybody's favourite anthropomorphic musician K.K. Slider is actually named after sound designer Kazumi Totaka. One of Totaka's most recognisable tracks – from various Nintendo titles including *Mario Paint*, *Yoshi's Story*, and *Luigi's Mansion* – is K.K's debut song.

Don't let the cute anthropomorphic animals fool you, 15 years on Animal Crossing is still one of the most realistic life-simulations to ever emerge

WE LOOK TO videogames to seek escapism from adult life, right? Adventure and excitement; comfort and friendship, gaming can give us all of these things from the relative safety of our living room. Why then, with literally thousands of games to choose from, did we ever decide to put ourselves through the terror and absurdity of something like *Animal Crossing*?

Look behind the sweetness and there's something very unsettling simmering below the surface. Is there any way that Nintendo could have known what it was unleashing onto the world when it first conceptualised Japan-exclusive *Dobutsu No Mori*? It's a game that would begin life on the 64DD, the peripheral's internal clock and improved memory used to power the simulation of a real-life village. It was to be a place populated by loveable anthropomorphic mammals, existing in real time to keep you hooked – for Nintendo, it was to be a hugely innovative stride forward.

Following the collapse of the N64's disk drive, Nintendo shifted development, first onto the N64 (*Animal Forest*, 2001) and eventually, famously, what we now know as *Animal Crossing* appeared for the first time in North America for the GameCube. The 2002 release was seemingly fun, friendly and safe, utilising Nintendo's new system to be the "real life game that's playing, even when you're not."

Looking back, *Animal Crossing* is actually pretty bleak. Sure, it's entertaining at first, but ends up as a torturous reflection of a consumerist, capitalist society. You might not remember it that way, if you haven't played any of the recent iterations, but just think about it for a moment. It's a paper-craft nightmare that launches off of the premise that you – a human in strange new place – have moved to a new village, viewed immediately as an outsider and put to work to pay off a ridiculous mortgage from local embezzler-turned-realtor Tom Nook. It's a game that succeeds, largely, because of how excellently it replicates the loop of our day-to-day lives – the cycle of labour, money and consumption brought to life in the sixth generation of consoles.

BEST CHARACTERS

WANT TO HAVE A GREAT TIME IN ANIMAL CROSSING?
MAKE SURE YOU MEET THESE WONDERFUL CHARACTERS



K.K. SLIDER

★ K.K. Slider is the lovable hippy dog that travels to your village every week to sing a few tunes and have a few laughs. While K.K. has appeared in other *Animal Crossing* games, he has decided to become a DJ, which just isn't as cool as the roaming guitarist.



ROVER

★ You should have known going to this village was a bad idea when you got accosted on the train by a talking cat. Rover sits opposite you any time you travel, demanding details such as your name, birthday and location. He says he isn't crazy, but we have our doubts.



PETE

★ We always liked Pete. Unlike our real-life Royal Mail, his postal deliveries are always on time. At 9AM and 5PM he will appear to deliver your mail, and if you befriend him he will even tell a few stories about some of the other villagers.

■■■ The game thrives off of the fact that you want to engage in a type of fun that acts quite a bit like work – you spend all your time rattling through a list of banal tasks so that you can go relax. Sound familiar? And so you immediately fall into a routine, watching the clock to get your tasks completed before the sun sets. That's a mission made in earnest to earn enough Bells to purchase new tables, decorations and assorted junk to decorate your little slice of homely capitalist heaven.

Animal Crossing also forces you to interact with your neighbours. Each unique, with their own personalities, you'll need to earn their trust through conversation and favours on a daily basis. You'll establish friendships but maybe one day, in spite of your best efforts, they'll move away. You'll be sad but there's little time to dwell; some of your neighbours are upset you didn't talk to them for a few days. They'll make you work damn hard to earn even a simple pleasantry, often testing your reliability and memory with little quizzes – it's ridiculous but somehow utterly engaging, especially as one of them may reward a delivery of fresh coconuts with a brand new television.

Animal Crossing even manages to re-create bouts of unavoidable bad luck: a fortune-teller can curse you and bees will sting you, prompting neighbours to leer and make comments about your misfortunes. You'll be held personally accountable for anything that goes wrong in the village, including weeds springing up should you skip a day of gardening. You'll be assaulted should you make attempt to cheat the system and you'll routinely have Nook on your case about money; but that's *Animal Crossing*, the game that expertly makes busy-work look like play.

It hinges on you wanting to waste time in real time; it's part of the majesty of its design. Using the GameCube's internal clock and calendar, *Animal Crossing* wouldn't just cycle through day and night, but it would ensure everything runs whether you're there or not – and your neighbours would remember. The mailbox piles up with letters, trees would grow tall and weeds would litter the land requiring hours of clean up. It's through this in-game persistence that *Animal Crossing* pulls a wondrous shift in your attitude towards it as time goes on.

Whether it's in a real or virtual life, nobody should live to work. You shouldn't need to die in the pursuit of happiness, because it's there waiting for whenever you accept your lot in life. After weeks spent buying a bigger house, paying escalating loan fees, collecting matching furniture, and dealing with an array of ridiculous citizen concerns, eventually it the time comes to stop doing what you think you *have* to do and just do what you *want* to do.

Travel to your friends' villages to find exotic new fruit, make new buddies, hunt down and play the hidden NES games, and wait outside the station for K.K. Slider – just because. To an extent, what you find in *Animal Crossing* is that which you brought with you. It's a clever reflection of life that builds from the player; it provides an adorable blank canvas for you to paint over with your own memories and experiences. *Animal Crossing* taught us to step back from the monotony of work and to take the time to smell the roses. Just remember to watch out for the bees.

THE GAME THRIVES OFF THE FACT THAT YOU'VE SELECTED A TYPE OF PLAY THAT ACTS QUITE A BIT LIKE WORK

KEY FACTS

■ There are over 15 collectible NES games hidden within *Animal Crossing* that can be found and played from your home. Due to the advent of the Virtual Console, this is the last time the series would include such an option.

■ *Animal Crossing* included special areas that could only be accessed with either a Nintendo eReader or GBA link-up. While they weren't necessary to the game, they sure did help expand its horizons.



GAME CHANGERS

ESSENTIAL ACTIVITIES IN ANIMAL CROSSING

WORKING IN REAL TIME, YOU'LL NEED TO PATIENTLY PROCEED THROUGH THIS LIFE SIM TO SEE IT ALL



PLANT A TREE

■ ONCE YOU'VE GOT yourself a little shovel, you'll be able to dig holes and plant stuff in the ground. While this may sound tame, there's an almost magical quality about planting a flower or fruit one day and then seeing a little sprout appear the next. Plus, growing produce is key to keeping the coffers full and Nook off your back.



WAIT FOR K.K. SLIDER

■ ONE OF THE coolest things to find in *Animal Crossing* is K.K. Slider, a musician who would arrive in your village every Saturday evening between 8:00pm and 12:00am. Found outside the Train Station, sat on a stool with an acoustic guitar, K.K. sits waiting for you to request a song or ask for him to choose one from the 50 in his repertoire.



MAKE FRIENDS

■ ONE OF THE biggest draws to *Animal Crossing* are the animals in the village. Each has their own distinct personality, so figuring out your neighbour's likes and dislikes was key, interacting with them was a key break between jobs, just don't leave your town untended for too long – they might just leave forever; or just hate you. Both are bad outcomes.



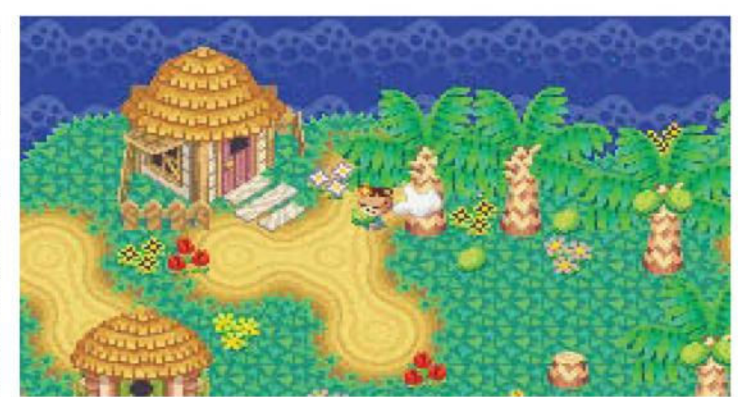
REMEMBER TO PARTY

■ THERE'S A HUGE amount to do in Animal Crossing, but you'll also need to keep one eye on the calendar. Animal Crossing doesn't just follow our time it reflects it. Seasons change and holidays come and go; you'd need to return on Halloween and Christmas to see special parties, outfits and gifts.



TAKE A TRIP

■ IT WAS AS easy as adding a second memory card to your GameCube to visit another friend's town. It was impressive for Nintendo at the time, not only did this give you an opportunity to collect new fruit, find unique items, but you could also meet new and unique villagers, some of whom may like you so much that they move into your town.



MESS WITH FRUIT ECONOMY

■ SHOULD YOU HAPPEN to venture into a friend's village or the little island hidden at sea, you'll have the opportunity to snap up fruit and items that aren't local to your area. Grabbing new exports and growing them in your own town can prove to be highly lucrative, plus your picky neighbours will (probably) love it!



LOOK OUT FOR WANDERING FOLK

■ WANDERING SALES FOLK would often appear sporadically in your village. A ghostly figure that could clear up all the weeds in the town, a fortune teller with a bad temper and travelling carpet salesmen who want all of your money for fancy rugs. Non-essential to the game? Sure, but the rarity of such appearances made them feel monuments.



GO FISHING

■ FISHING WAS A fun activity in *Animal Crossing*, even though you mostly pulled junk up from the river and ocean. Not only would this prove to be an easy way to make Bells – Tom Nook would buy any old crap – but you would occasionally come across some rarities. Besides, it's actually pretty relaxing, for some unknown reason.



20 HARDWARE INNOVATIONS THAT REDEFINED GAMING

For decades, advances in hardware have reshaped our gaming lives – sometimes with great fanfare, sometimes going almost unnoticed. Join us for a look back at 20 innovations with legacies that still impact gaming today

THE FIRST COMMERCIAL CONSOLE



1 ■ **Hardware:** ZX81 ■ **Year:** 1981 ■ **Company:** Sinclair Research

The computer that took British homes by storm in the early Eighties did so on account of its price - £49.95 in kit form, £69.95 assembled – and it couldn't have achieved that without some incredibly innovative hardware design. The computer utilised a mere four silicon chips and no moving parts – even the keyboard was a plastic membrane model. The machine also leveraged household items, using your TV in lieu of a monitor and a cassette player for data storage. Not only did the ZX81 produce a generation of bedroom coders that provided the foundation of the British gaming industry, it set the stage for similarly affordable computers throughout the Eighties.

BACKWARDSCOMPATIBLE GAMING

2 ■ **Hardware:** ColecoVision Expansion Module #1 ■ **Year:** 1982 ■ **Company:** Coleco

As well as fostering brand loyalty, backwards compatibility can help a new console through the transition between generations. This was something that Coleco recognised when launching its ColecoVision in 1982, and backwards compatibility was provided by way of an expansion module. But Coleco didn't have a previous console to provide the library, so the ColecoVision Expansion Module #1 allowed the ColecoVision to play Atari 2600 games. It was a bold move – not only was Coleco offering compatibility with a competitor's machine, but the new Atari 5200 itself completely lacked backwards compatibility. Atari failed to stop the device through litigation as the 2600 could be replicated without infringing on proprietary technologies. Atari was eventually forced to release the Atari VCS Cartridge Adapter for the 5200. Coleco's device not only proved the value of backwards compatibility, but forced platform holders to better protect their hardware designs from unauthorised cloning.



THE CHIP THAT SAVED GAMING



3 ■ **Hardware:** NES ■ **Year:** 1985 ■ **Company:** Nintendo

Some innovations benefit players; others are designed to aid businesses. Nintendo's greatest innovation with the NES definitely fell into the latter category. The NES features the 10NES lockout chip, an addition to the original Famicom design which gave the company a powerful weapon against unlicensed development and piracy, as well as an effective means of regional lockout.

Hardened importers may baulk at the idea of region-locking as a key innovation in gaming history. However, Nintendo's control over the supply of NES software was one of the key factors which allowed it to prevent the console market from being flooded with low-quality software as it had been prior to the crash of 1983. Without the 10NES, it's unlikely that Nintendo would have regained the trust of North American retailers and consumers.

Ironically, the 10NES would cause as many problems as it solved, as the chip was central to the machine's reliability issues. It ultimately didn't matter, as other platform holders quickly implemented similar lockouts, creating the closed and restrictive console market that has existed to a greater or lesser degree ever since.

HARDWARE BOOSTING GAMES

4 ■ **Hardware:** NES Game Pak
■ **Year:** 1985 ■ **Company:** Nintendo

The NES wasn't endowed with a great amount of RAM, so cartridges often supplemented it. But the improvements didn't end there – on-board memory management controller chips provided capabilities beyond what the stock NES could achieve. Later, cartridge-based systems allowed for similar capabilities, leading to the likes of the famous SNES Super FX chip and the less famous Sega Virtua Processor.



CONTROLLER DESIGN

5 ■ **Hardware:** NES controller
■ **Year:** 1985
■ **Company:** Nintendo

Early consoles had a range of designs, from joysticks to vertically-oriented controllers with over ten buttons. When Nintendo introduced the Famicom in 1983, it came close to standardising console controllers, with two action buttons, two function buttons and the cross-shaped D-pad borrowed from its Game & Watch range. The export NES version further refined the design and competitors caught on – the Atari 7800, Sega Master System, NEC PC Engine and Amstrad GX4000 offered similar pads.



ERGONOMIC DESIGN

6 ■ **Hardware:** Mega Drive controller
■ **Year:** 1988 ■ **Company:** Sega

For some reason, comfort was not much of a concern amongst early console manufacturers, resulting in a wide array of rectangular slabs of plastic. Not so with Sega, which produced an ergonomically respectable pad for the Mega Drive by curving the edges away and extending the grips downwards, beginning the progress towards the two-pronged, grippable designs that are commonplace today.

FEATURE EXPANSION



7 ■ **Hardware:** Mega Drive cartridges
■ **Year:** 1988 ■ **Company:** Sega

The intensity of the 16-bit war forced Sega and Nintendo to go all-out in search of a competitive edge. In general, Nintendo preferred to leverage the power advantage of the SNES, while Sega relied on innovation and bold marketing. Mega Drive cartridges would eventually allow for both by physically interfacing with other devices. Sega's *Sonic & Knuckles* featured a cartridge slot, allowing it to function both as a stand-alone game and an expansion to back catalogue titles. Sega also approved Codemasters' J-Cart technology, which integrated two additional control ports in the cartridge to allow for four-player gaming without a multi-tap. Ultimately, such innovations proved to be short-lived due to the rise of CD-ROM as the dominant software storage medium, but don't count them out – Nintendo included an infrared interface on *Pokémon HeartGold/SoulSilver* cards, which serves as proof that a comeback is never out of the question.

PORTABLE GAMING

8 ■ **Hardware:** Game Boy ■ **Year:** 1989
■ **Company:** Nintendo

Like the ZX81 earlier, the Game Boy innovated in terms of delivering a specific experience – in this case, gaming on the move. Atari's Lynx was a cutting-edge machine, featuring full colour graphics and advanced features like sprite scaling. Sega's Game Gear would also go down the colour route, with a backlit screen and a greater colour palette than the Mega Drive. Both made Nintendo's machine look comparatively primitive, but both competitors missed the point in a fairly spectacular fashion.

Nintendo's innovation with the Game Boy was to design a power-efficient machine. Four-shade greyscale visuals and a relatively weak CPU might have limited the games, but the most important thing was that people could play them in the first place. With the Game Boy delivering more gameplay time for fewer batteries than either of its competitors, players were happy and business boomed.



UNLOCK CODES



9 ■ **Hardware:** Game Genie ■ **Year:** 1990 ■ **Company:** Codemasters

The market for paid cheats has been big business for a long time, and while publishers have regained control of it with DLC unlock codes today, it was once a legally shady practice engaged in by unlicensed developers. Easily the most important cheating device was the Game Genie, developed by Codemasters and manufactured by Galoob, which allowed players to alter code values in NES games. Nintendo was furious about the device and took manufacturer Galoob to court on the grounds that modified games constituted copyright infringement as derivative works. After years of legal wrangling, Galoob won a favourable judgement, opening the floodgates for similar devices including the Gameshark, Action Replay and Xploder.

SHOULDER BUTTONS



10 ■ **Hardware:** SNES controller ■ **Year:** 1990 ■ **Company:** Nintendo

With four action buttons in a diamond as well as left and right shoulder buttons, Nintendo's SNES pad set the standard layout for modern controllers. The shoulder buttons in particular were a big step forward, as every console since the video game crash had only had face buttons – and almost every major console since has implemented shoulder buttons.

ANALOGUE CONTROL



11 ■ **Hardware:** N64 Controller ■ **Year:** 1996 ■ **Company:** Nintendo

There's not a controller on the market today that looks anything like the N64 controller, and yet it had a major impact on controller design. While nobody has adopted the awkward three-pronged shape, the inclusion of an analogue stick as standard finally gained acceptance after two decades of failed experimentation by other companies. The camera controls offered by the C buttons were also widely adopted, though more often in the form of a second analogue stick, as was the rear Z trigger.

However, the biggest innovation was the controller-mounted expansion port, which accepted memory cards and a variety of other peripherals. Some of these, like the microphone and the Rumble Pak, were fairly conventional, but others like the Transfer Pak for Game Boy games were truly unusual. Many controllers have aped this feature since, including the Dreamcast, Xbox and Wii controllers.

FORCE FEEDBACK

12 ■ **Hardware:** Rumble Pak ■ **Year:** 1997 ■ **Company:** Nintendo

Force feedback initially seemed like a neat little gimmick in 1997, but it quickly turned into an indispensable feature. Sony quickly integrated the feature into its DualShock controller, Sega released a Dreamcast equivalent, and the vast majority of first-party pads that followed included some form of force feedback. If you doubt the necessity of vibration in gaming controllers today, cast your mind back to the Sixaxis, the rumble-free iteration of the PlayStation controller that accompanied PlayStation 3 consoles at launch. Fan feedback was overwhelmingly negative, forcing Sony to eventually relent and release the DualShock 3. So while rumble is a feature that has become something of a background element of gaming, trust us when we say that controller manufacturers omit it at their peril.



REGIONAL PARITY



13 ■ **Hardware:** Dreamcast ■ **Year:** 1998 ■ **Company:** Sega

While the Dreamcast is well-remembered for being the first console to integrate internet connectivity, it's arguable that it didn't get that right. However, it did herald a major shift in how console manufacturers approached the European market. Prior to the release of the Dreamcast, Europe's PAL TV system meant that most games paled in comparison to Japanese and American NTSC releases, frequently suffering from reduced speed and huge black borders. The Dreamcast could output multiple video standards without the need for modification, and more importantly, the user was given a choice between them; the vast majority of Dreamcast games released in Europe featured 60Hz options. Rival manufacturers immediately followed suit, ending a great divide almost overnight. It's a good job, too – just imagine a world of segregated PAL/NTSC online servers!

DVD PLAYBACK

14 ■ **Hardware:** PlayStation 2 ■ **Year:** 2000 ■ **Company:** Sony

The PlayStation 2 might have had blockbusters like *Grand Theft Auto III*, *Final Fantasy X*, *Gran Turismo 3* and *Metal Gear Solid 2* early in its life, but the truth of the matter is that a non-gaming feature was a bigger draw than any of these titles. Despite being a secondary feature, the machine's ability to play DVDs was a massive selling point, giving Sony a big advantage over the Dreamcast and Gamecube (and though the Xbox supported DVD playback, it required an add-on). Today, a console without media support is practically inconceivable – even Nintendo hardware supports streaming services.



ONLINE READY



15 ■ **Hardware:** Xbox ■ **Year:** 2001 ■ **Company:** Microsoft

The Dreamcast might have offered online gameplay, but the Xbox was built for it. At a time when Sony and Nintendo were promoting machines with no online connectivity out of the box, Microsoft's machine was set up for broadband from the word go. More importantly though, the machine had the mass storage to really take advantage of it – not only could the hard disk store patches and downloadable expansions, but downloadable games via the initial version of Xbox Live Arcade. While the Xbox was a distant second to the PlayStation 2, it represented a fantastic technological testing ground for the Xbox 360, which more firmly established Microsoft in the console market. Of course, these days consoles have all of these features by default – not a bad level of influence for a runner-up.

WIRELESS CONTROLLER



16 ■ **Hardware:** WaveBird ■ **Year:** 2002 ■ **Company:** Nintendo

Did wireless controllers exist before the WaveBird? They certainly did, but they weren't great – radio frequency models tended to be bulky and power-hungry, while infra-red models required direct line of sight to a receiver, meaning that someone walking in front of you could disrupt your game. The WaveBird used radio frequency, but by 2002 the size and power issues had been resolved. Nintendo's delivery of a reliable, economical wireless controller would prove to be influential – the next gen of consoles supported wireless controllers directly as standard, rendering the WaveBird's receiver rather quaint.

CAMERA-BASED GAMING



17 ■ Hardware: EyeToy ■ Year: 2003 ■ Company: Sony

What is a party game without someone making a total fool of themselves? Not fun, that's what. The EyeToy is the innovation that revolutionised party games, providing a device that used the novelty of being on TV to entice players into bizarre performances. Sandwiched between the *Dancing Stage* fad and *Guitar Hero*'s breakout success, the EyeToy was a versatile tool with a variety of applications. It was a big success for Sony with sales of over 10 million, primarily because it was cheap and received long-term support. It's not surprising that console manufacturers have been playing with cameras ever since. Unfortunately, the technology doesn't yet seem to have reached its full potential, but Microsoft's apparent willingness to abandon Kinect might be the death knell for camera-based motion control. But how many add-ons can claim to have inspired over a decade of experimentation in the first place?

MOTION GAMING

18 ■ Hardware: Wii Remote ■ Year: 2006 ■ Company: Nintendo

The controller for Nintendo's most popular console is a slice of design genius. The Wii Remote has the tactility that camera-based motion control misses, the versatility that regular controllers can't offer, and a familiar shape that doesn't threaten gaming newcomers. It was the envy of competitors – with Sony in particular offering both the Sixaxis and Move controllers as attempts to keep up – and the most unlikely killer app of the decade. While motion control is not tremendously popular amongst the hardcore right now, the design principles that underpin the Wii Remote are seen in the hugely popular mobile market.

MOBILE GAMING

19 ■ Hardware: iPhone ■ Year: 2007 ■ Company: Apple

The iPhone solved a problem that most people didn't even know they had, by combining powerful gaming capabilities with one of the most widely-carried communication devices of the modern era. With downloadable games for little or no cost and simple, intuitive control schemes, the iPhone avoided all of the pitfalls of Nokia's attempt to combine gaming and mobile phones with the N-Gage. Purists may scoff, but the simple fact is that mobile phones have become an important gaming platform, and without Apple's pioneering device that simply might not have happened at all.

NFC FIGURE EXPANSION

20 ■ Hardware: Skylanders figurines ■ Year: 2011 ■ Company: Activision

Downloadable content is a goldmine for games aimed at adults, who have ready access to credit cards, but much harder to sell to children. *Skylanders: Spyro's Adventure* provided an elegant solution to this by tying content expansion to physical toys containing NFC tags. Not only was the game's retail presence boosted by the addition of figurines, but kids could wander in and pay cash (or convince parents to do so, at least) for a tangible product. The marketplace has become more crowded with the introduction of *Disney Infinity*, *LEGO Dimensions* and Nintendo's amiibo line, but it looks like the craze is here to stay.



35 YEARS OF GAMING HISTORY



:The ultimate guide to classic gaming